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September 15, 2015

Ms. Dilan Roe
Site Cleanup Program Manager
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94501-6577

Subject: Construction Site Management Plan
Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California
Site Cleanup Program Case No. RO0003014

Dear Ms. Roe:

Enclosed please find a document entitled *Construction Site Management Plan* for the Former Crown Chevrolet North Parcel site at 7544 Dublin Boulevard, in Dublin, California (Site Cleanup Program Case No. RO0003014, GeoTracker Global ID T10000001616). This plan was prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., on behalf of BWD Dublin LLC.

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please contact me at (408) 680-4938 or Avery Whitmarsh of Amec Foster Wheeler at (510) 663-4154 if you have any questions regarding this report.

Sincerely yours,



Pete Beritzhoff
BWD Dublin LLC

Attachment: Construction Site Management Plan

Cc: Colleen Winey, Zone 7 Water Agency (electronic copy only)
Gregory Shreeve, City of Dublin (electronic copy only)



CONSTRUCTION SITE MANAGEMENT PLAN

Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California

Prepared for:

BWD Dublin, LLC
Dublin, California

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
180 Grand Avenue, Suite 1100
Oakland, California 94612

September 2015

Project No. OD14170800



CONSTRUCTION SITE MANAGEMENT PLAN

Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California
Site Cleanup Program Case No. RO0003014

September 15, 2015
Project OD14170800

This report was prepared by the staff of Amec Foster Wheeler under the supervision of the Engineer whose signature appears hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.



Douglas C. Bablitch

Doug Bablitch, PE #C64096
Principal Engineer

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ACRONYMS AND ABBREVIATIONS

ACDEH	Alameda County Department of Environmental Health
AMEC	AMEC Environment & Infrastructure, Inc. (now Amec Foster Wheeler)
BAAQMD	Bay Area Air Quality Management District
BMPs	best management practices
Cal-OSHA	California Occupational Safety and Health Administration
CB&G	Carlson, Barbee & Gibson, Inc.
CCR	California Code of Regulations
COCs	Chemicals of concern
ESLs	Environmental Screening Levels
HASP	Health and Safety Plan
NPDES	National Pollution Discharge Elimination System
OSHA	Occupational Safety and Health Administration
PPE	personal protective equipment
PRB	permeable reactive barrier
QSD	qualified SWPPP developer
CSMP	Construction Site Management Plan
SWPPP	Storm Water Pollution Prevention Plan
VMS	vapor mitigation system
VOCs	volatile organic compounds
Water Board	San Francisco Bay Regional Water Quality Control Board

CONSTRUCTION SITE MANAGEMENT PLAN

Former Crown Chevrolet North Parcel
7544 Dublin Boulevard Development
Dublin, California

1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure, Inc. (“Amec Foster Wheeler”; formerly AMEC Environment & Infrastructure, Inc.), has prepared this *Construction Site Management Plan* (CSMP) on behalf of BWD Dublin, LLC for the former Crown Chevrolet North Parcel located at 7544 Dublin Boulevard, in Dublin, California (site) (Figure 1). This CSMP provides procedures for protection of human health and the environment during construction activities at the Site that include implementation of corrective actions and pre-development activities where worker exposure to environmentally impacted soil, soil vapor, and groundwater is possible. The CSMP has been prepared at the request of the Alameda County Department of Environmental Health (ACDEH) in an August 7, 2015.

Terms used in this CSMP include the following:

- Owner – current property owner/leaseholder at any given time. The site is currently owned and operated by Dublin Apartment Properties, LLC.
- Contractor – party conducting on-site activities as engaged by the Owner or other parties.
- Engineer/Consultant – current engineer/consultant engaged by the Owner to assist in implementing this CSMP.

Owner’s workers and/or Contractor(s) are responsible for adhering to this CSMP and maintaining job and site safety. Each Contractor also is responsible for providing a copy of the CSMP to its subcontractors.

1.1 OBJECTIVES

The following specific objectives were developed to manage the presence of residual chemicals in site soil, soil vapor, and groundwater:

- To present guidelines for appropriate health and safety precautions for on-site construction workers who may access soil, soil vapor, and groundwater that could contain residual chemicals.
- To maintain site security measures to prevent unauthorized public access to the site.
- To present procedures for short-term (i.e., during construction activities) management of the residual constituents present in soil, soil vapor, and groundwater at the site.

Procedures for long-term management (i.e., during ongoing site operations or maintenance activities) of the residual constituents at the Site will be presented in a complete *Site Management Plan* that will be submitted to ACDEH for review and approval prior to completion of the redevelopment of the property.

1.2 SUMMARY OF CURRENT CONDITIONS AND SCOPE OF CONSTRUCTION

Summaries of the current environmental conditions at the site and the scope of the work to be performed are provided in the following sections.

1.2.1 Current Conditions

The site was operated as a car dealership, repair shop, and auto body shop beginning 1968; all operations ceased in 2013 (Figure 2). The property was sold in the fall of 2014, and in 2014 and early 2015 the demolition of existing parking areas, buildings, the sumps, front-end alignment pit, hydraulic lifts, and a former fuel tank and waste oil tank area was performed by Dublin Apartment Properties in preparation for redevelopment (Amec Foster Wheeler, 2015c). The Site is planned to be redeveloped as multi-level mixed residential and commercial space beginning later in 2015 (Figure 3).

Multiple investigations have been conducted at the site from 2009 to 2014 and are summarized in the *Final Feasibility Study and Corrective Action Plan* ("FS/CAP"; AMEC, 2014a). These investigations were performed to address regulatory concerns as well as in support of transactional and potential redevelopment activities, and included collection of soil, groundwater, and soil vapor samples throughout the site. Based on the previous investigations, two main areas of soil, groundwater, and/or soil vapor impacts were identified:

- Volatile organic compounds (VOCs), primarily tetrachloroethene (PCE) and trichloroethene (TCE), are present in shallow groundwater throughout the northern portion of the site. The PCE and TCE are attributed to an off-site source; the specific source has not been identified. Soil vapor impacts (PCE, TCE, and some breakdown products) have been identified in the vicinity of the groundwater plume, extending approximately 200 to 240 feet south from the northern property boundary, as summarized in the FS/CAP (AMEC, 2014a).
- Past releases at the site impacted soil with chlorobenzene and related compounds at a former front-end alignment pit ("former F.E. Pit") and former sump within former Building B. Limited groundwater and soil vapor impacts have also been identified at the former sump. Impacted soil was removed at the former F.E. Pit and former sump in 2011 and 2015, as summarized in the Remediation Report (AMEC, 2011c) and Post-Demolition Investigation and Soil Removal Completion Report ("Completion Report"; Amec Foster Wheeler, 2015c).

Groundwater monitoring at the site has indicated that concentrations of VOCs in groundwater are generally stable or declining (Amec Foster Wheeler, 2015c).

Additionally, during the post-demolition sampling performed in late 2014 and early 2015, Amec Foster Wheeler identified six areas with limited impacts to soil from total petroleum

hydrocarbons, polychlorinated biphenyls, VOCs, semivolatile organic compounds (SVOCs), and/or metals. The soil in these areas that contained concentrations of chemicals of concern (COCs) above relevant screening levels¹ was removed and disposed of off-site, as documented in the Completion Report (Amec Foster Wheeler, 2015c).

Additional post-demolition soil profiling was conducted by Stellar Environmental Solutions, Inc. (Stellar) during site clearing and grubbing activities to characterize the soil for both off-site disposal options and to identify and evaluate any potential site worker exposure issues that may be present during upcoming redevelopment construction activities. The results of the soil profiling are included in Appendix A and indicated residual concentrations of COCs were below ESLs, with the exception of naturally occurring metal arsenic (Stellar, 2015a,b). As noted in the Completion Report, background concentrations of arsenic in soil are commonly higher than the ESL. As noted on the website for the Regional Water Board ESLs, a 2011 master's thesis compiled publically available data for arsenic in the Bay Area and proposed an upper estimate (99th percentile) for background arsenic of 11 mg/kg within the Holocene alluvium, which is found at the Site and throughout the Bay Area (Duvergé, 2011). The mean arsenic concentration within the Holocene alluvium was determined to be 5.1 mg/kg in this study.

1.2.2 Planned Corrective Actions

Corrective actions will be implemented to address the two main environmental concerns to mitigate the risk of exposure of future site occupants and workers to COCs. As outlined in the *Vapor Mitigation and Permeable Reactive Barrier Basis of Design Report* ("Design Report"; Amec Foster Wheeler, 2015b), this risk will be mitigated by installing a vapor mitigation system (VMS) beneath the future building slabs in areas where elevated VOC concentrations have been measured in soil vapor and installing a permeable reactive barrier (PRB) at the upgradient site boundary.

The PRB will be installed in the fall of 2015 near the northwest corner of the Site, where the impacted groundwater is entering the Site, and will be designed to passively treat the impacted groundwater as it moves beneath the Site. During construction of the PRB, soil from up to approximately 30 feet below ground surface will be removed and disposed of off-site.

The VMS will include a vapor membrane and a passive sub-slab venting system that will be installed beneath the vapor mitigation membrane within the footprint of selected site buildings. The VMS will be installed during the building construction activities, following the structural excavation and placement of base rock within each building location, which is currently planned to begin in late 2015 and continue through 2016.

¹ San Francisco Bay Regional Water Quality Control Board (Water Board) Environmental Screening Levels (ESLs) for shallow soil in commercial/industrial areas where groundwater is considered a drinking water source.

1.2.3 Redevelopment Activities

Site redevelopment is scheduled to begin in the fall of 2015. The redevelopment will include mixed residential/commercial buildings at the site, comprising 313 apartments (a total of approximately 323,000 gross square feet in multi-unit structures) and 17,000 square feet of retail space at ground level along Dublin Boulevard; some of the apartments will be located above the retail space. An approximately 230,000-square-foot parking garage is planned for the eastern central portion of the site.

The construction activities that are addressed in this CSMP include, but not are limited to grading; excavation of foundations, footings, and below-grade elevator pits; and installation of controlled low-strength material (CLSM) in columns to densify soil under the proposed garage (Amec Foster Wheeler, 2015a).

1.2.4 Depth Intervals of Intrusive Activities

The approximate depth intervals of the upcoming intrusive activities associated with implementation of the corrective actions and building construction may include, but not be limited to, the following:

- 0 to 7 feet below grade: Grading; and excavation of soil for foundations and footings, below-grade elevator shafts, and swimming pool. Construction workers will not encounter groundwater, but will encounter soil and soil vapor.
- 0 to 30 feet below grade: Construction of the PRB, which is anticipated to include trench excavation using bioslurry construction methods and emplacement of the treatment media within the excavation. Construction workers will encounter soil, groundwater, and soil vapor.
- 0 to 35 feet below grade: Construction of ground-improvement columns to support the parking garage structure, which is anticipated to include injection of CLSM into the subsurface to form 576 columns. The injection will be performed using a displacement tool. Construction workers will not encounter soil, groundwater, or soil vapor, with the exception of decontamination activities.

2.0 REGULATORY STATUS AND GENERAL REQUIREMENTS

The ACDEH is the designated lead agency for site remediation. The additional stakeholder agencies include the City of Dublin and Zone 7 water agency.

2.1 REGULATORY REQUIREMENTS

Earthwork activities may be subject to federal, state, and local laws and regulations, including those promulgated by U.S. Environmental Protection Agency (U.S. EPA), California Environmental Protection Agency (Cal-EPA), California Department of Toxic Substances, the Bay Area Air Quality Management District (BAAQMD), and the Occupational Safety and Health Administration (OSHA). These laws address issues such as dust generation, hazardous waste, storm water, health and safety, Proposition 65, and community right-to-

know. While some of these issues are discussed in this CSMP, it is the responsibility of the Owner or Contractor performing work that may involve contact with potentially impacted site soil, groundwater, and soil vapor to ensure worker safety and to comply with currently applicable laws and regulations.

2.2 NOTIFICATIONS

The following Owner's personnel are the primary point of contact regarding environmental conditions and will be contacted prior to any intrusive work. The current contact information for these personnel is presented below.

Contact	Telephone No.
Dublin Apartment Properties Project Manager	Pete Beritzhoff 408-680-4938
Dublin Apartment Properties Construction Manager	Adam Lambert 415-509-1441

Notifications will be made to the appropriate regulatory agency prior to beginning intrusive work.

3.0 GUIDELINES FOR HEALTH AND SAFETY DURING CONSTRUCTION ACTIVITIES

The health and safety of Owner's employees is the responsibility of the Owner's project manager. Contractors are responsible for their own health and safety for contractor employees engaged in work at the site. Preparation of a Health and Safety Plan (HASP) covering applicable construction activities is the responsibility of the Owner's project manager and/or Contractor at the site during such activities and must be prepared by an appropriately trained person (e.g., certified industrial hygienist or other qualified professional). Such HASPs must meet the requirements of Title 8 in California Code of Regulations (CCR), Section 5192, at a minimum and must cover all construction activities to be performed by Contractor or subcontractors' personnel. All applicable federal, state, and local regulations and codes relating to health and safety must be adhered to, including all sections of California Occupational Safety and Health Administration (Cal-OSHA) regulations contained in CCR Title 8 as they apply to the site activities.

Guidelines provided in this CSMP apply only to the classes of chemicals previously detected and characterized at the site and does NOT address health and safety issues related to any other hazards or activities at the site (including, but not limited to, activities related to electrical work, trenching and shoring and weather-related hazards). These guidelines represent minimum health and safety measures related to the chemical impacts addressed herein. Additional measures may be implemented at the discretion of the Owner and/or Contractor, based on the specific construction tasks to be performed.

In general, the depth intervals of intrusive construction activities are relevant to worker health and safety monitoring and protection, and should be considered in the development of HASPs

and protocols, as described above, in Section 1.2.4. A summary of potential health and safety issues requiring potential additional evaluation, monitoring, and worker protection is provided below:

- **Soil:** Soil profiling has indicated that concentrations of COCs in shallow soil (i.e., above the water table) are below ESLs for direct exposure and are not anticipated to pose a health and safety risk to construction workers (Stellar, 2015a,b). However, the excavation of deeper, saturated soil during installation of the PRB will be performed under a HASP prepared by the Contractor. Additional health and safety requirements pertaining to the PRB construction are presented in the Technical Specifications included in the Design Report—Appendix G (PRB Design Drawings and Technical Specifications) (Amec Foster Wheeler, 2015).
- **Groundwater:** PCE has been detected in groundwater in the northern portion of the site at concentrations up to 210 micrograms per liter ($\mu\text{g/L}$) and TCE at concentrations up to 78 $\mu\text{g/L}$. Groundwater is expected to be encountered at concentrations above Water Board ESLs is present at depths ranging from approximately 10 to 15 feet below grade in the northern portion of the site. Construction activities where workers have the potential to contact impacted groundwater (i.e., installation of the PRB) will be performed under a HASP prepared by the Contractor. Additional health and safety requirements pertaining to the PRB construction are presented in the Technical Specifications included in the Design Report—Appendix G (PRB Design Drawings and Technical Specifications) (Amec Foster Wheeler, 2015).
- **Soil Vapor:** Benzene, PCE, TCE, and vinyl chloride were detected in soil vapor during sampling performed from 2010 through 2012 at concentrations greater than Water Board ESLs for the evaluation of potential vapor intrusion to indoor air in a residential setting (Figure 2).² Although VOC concentrations in outdoor air emanating from soil vapor would be diluted significantly with atmospheric air (DTSC, 2013), the potential risk to construction workers should be evaluated by a qualified professional prior to beginning the work. Calculation of site-specific screening levels for construction workers and/or personal air monitoring may be considered.

3.1 PERSONAL PROTECTIVE EQUIPMENT

Site workers who will or have the potential to be in contact with soil, soil vapor, and/or groundwater at the site will use appropriate protective equipment (PPE) to minimize potential exposures. The PPE required may be upgraded (e.g., use of a respirator may be required) in the event that site conditions change. Potential events that may require an upgrade of PPE may include the following:

- Identification of additional chemicals or an increase in chemical concentrations in soil, groundwater, and/or soil vapor during any future sampling conducted by Owner and/or Contractor;

² Benzene was detected at a maximum of 1,300 micrograms per cubic meter ($\mu\text{g/m}^3$), PCE was detected at a maximum of 35,000 $\mu\text{g/m}^3$, TCE was detected at a maximum of 12,000 $\mu\text{g/m}^3$, and vinyl chloride was detected at a maximum of 130 $\mu\text{g/m}^3$. The soil vapor samples were collected at depths ranging from 1 to 6 feet below grade.

- Exposure monitoring indicating the need to upgrade PPE; and
- Temperature or individual medical conditions limiting the effectiveness of PPE.

3.2 DECONTAMINATION PROCEDURES

Contractors engaged in significant soil-disturbing activities will provide an area for personnel decontamination adjacent to the work area. This area will include boot washing and hand washing facilities, toilet facilities, and receptacles for used protective clothing.

Decontamination procedures for site workers wearing PPE may include:

- Wash boots and gloves (if washable);
- Remove protective gloves and place in plastic bags for disposal (if disposable);
- Wash hands and face with soap and water before eating, drinking, using tobacco, or leaving the work area; and
- Clean respirators, if used, and dry as needed, and place in sealed plastic bags with individual identification.

Equipment contacting potentially impacted wet soil or groundwater within the known area of impacts (e.g., during installation of the PRB and the ground-improvement columns) will require decontamination prior to leaving the active area due to the possible presence of VOCs and other potential contaminants. Decontamination requirements will vary depending on the type of equipment and nature and condition of subsurface material encountered. For dry soils, dry removal of dirt from tires and bucket or blade using brooms should be performed, at a minimum (see Section 5 for additional discussion on soil/dust management measures). For equipment encountering wet soils or groundwater, cleaning with a steam cleaner or pressure washer should be performed on the portions of the equipment in contact with the wet soil or groundwater. Equipment decontamination will be performed in a contained area with the means to contain and collect decontamination rinsate. Decontamination water, if generated, will be containerized, sampled, and properly recycled/disposed.

Additionally, the Stormwater Pollution Prevention Plan (SWPPP) for the development project includes requirements for a wash station and shaker plates to minimize off-site tracking of site soil (CB&G, 2014).

3.3 SPILL RESPONSE PROCEDURES

In the event of a release of hazardous material or waste to the surface during maintenance or construction activities, such as a fuel release associated with construction equipment, the following spill response procedures will be implemented:

1. Evacuate all on-site personnel to a designated assembly area in an upwind direction until the site safety officer determines that it is safe for work to resume.
2. Contain the spill, if it is possible and it can be performed safely.

3. Immediately notify the appropriate emergency contacts (the current contacts are shown below). The Owner's emergency contact will subsequently notify the appropriate regulatory agency(ies).
4. Initiate containment/cleanup per project spill response plan.

3.4 EMERGENCY CONTACTS

Current emergency contacts for the site are shown below:

Contact	Telephone No.
Police, Fire, Ambulance (Land line or mobile phone)	911
Emergency Contact, Dublin Apartment Properties after hours	Pete Beritzhoff 408-680-4938
Certified Unified Program Agency (CUPA)	Rob Weston 510-567-6781
Alameda County Department of Environmental Health	Dilan Roe 510-567-6767

4.0 DUST MANAGEMENT MEASURES

Construction workers at the site may need to disturb soil in areas where residual chemicals (i.e., VOCs) or naturally occurring metals (i.e., arsenic) that may pose a potential exposure risk to workers may be present. The dust management measures provided herein are designed to minimize potential exposures to residual chemicals and/or naturally occurring metals in dust.

4.1 DUST CONTROL

Chemicals identified in soil at the site include VOCs and naturally occurring arsenic. When earthwork activities occur, dust control measures will be implemented to minimize dust generation. These will include dust control measures recommended by the BAAQMD and other recommended practices. Engineering controls are the preferred methods of controlling on-site and off-site exposures to dust generated through construction activities. Additional dust control measures may be required by the project specifications.

4.1.1 Minimum Requirements for Dust Control

The generation of dust during intrusive activities will be minimized and controlled through implementation of the following requirements based on BAAQMD Regulation 8 Rule 40 Section 306 (BAAQMD 8-40-306), at a minimum, so that no visible dust will be generated during the construction activities that disturb soil at the site:

- Have a water supply available on-site at all times to mist or spray water while excavating, stockpiling, and/or loading soil onto transportation vehicles.
- Control excavation activities to minimize dust generation.
- Keep drop heights to a minimum while loading transportation vehicles.
- Cover soil stockpiles and/or soil bins when not actively adding to or subtracting from the pile and at the end of each day.

4.1.1.1 Contingency Requirements for Dust Control

No visible dust will be permitted during site preparation, soil excavation, or excavated soil stockpiling or loading. If visible dust is observed during construction, the contractor will be required to immediately cease all dust generating activities until alternative dust control measures acceptable to Owner are implemented. If visible dust is observed, the following additional dust-control measures will be performed:

- Increase the magnitude of dust control measures;
- Increase the frequency of implementation of dust control measures; and/or
- Use Engineer-approved dust suppressant additives in the water.

4.1.2 Excessive Watering

Except where specifically approved by the Engineer/Consultant, the dust control methods which result in ponded water or surface erosion will not be performed.

4.2 DUST MONITORING

Dust monitoring may be implemented, along with the specific health and safety requirements of the Contractor, based on the scope of the specific construction activities to be conducted. If dust monitoring is implemented, the results of the monitoring should be used to evaluate the effectiveness of the dust control measures and determine the need for additional dust control procedures.

5.0 SOIL AND WATER MANAGEMENT PROCEDURES

Soil and water management procedures to be followed during the corrective actions are presented in the Design Report's Technical Specifications (Amec Foster Wheeler, 2015). Soil and groundwater handling procedures to be followed during intrusive construction activities are summarized below.

5.1 GUIDELINES FOR INTRUSIVE SITE ACTIVITIES

To the extent possible, soil excavated during construction activities will be reused so that removal and disposal of soil to other locations will not be necessary or will be limited. Handling and management activities for soil and groundwater to be followed during site construction activities are outlined below.

5.1.1 Soil Handling

During any excavation, when handling soil:

- Health and safety protocols will be followed, including all applicable federal, state, and local regulations and codes relating to health and safety and all sections of Cal-OSHA regulations contained in CCR Title 8 (see Section 3.0); and

- Dust control and monitoring measures will be followed in accordance with Cal-OSHA and BAAQMD requirements (see Sections 4.1 and 4.2).

5.1.2 Soil Stockpiling

Excavated soil will be temporarily stockpiled and protected as necessary from the adverse effects of rainfall (runoff) and/or wind (dust). All soil stockpiles will be watered, as needed, and securely covered with a suitable tarp to prevent wind erosion and dust generation. To limit public access to stockpiled soil, stockpiled soil areas will be fenced or otherwise protected and will be located in a contained area with no direct connection to storm drains.

Specific soil and stockpile management procedures to be followed during construction are presented in the SWPPP for the development project (CB&G, 2014). Additionally, storm water management practices will be consistent with all applicable rules and regulations, as described in Section 5.1.6.

5.1.3 On-Site Reuse of Soil

No soil is planned to be imported to the site during construction activities. If there is a need to import soil to the site, the soil will be tested in accordance with California Department of Toxic Substances Control (DTSC) guidelines.

Excavated or graded shallow soils that will be removed from 0 to 7 feet below grade have been profiled and the profiling data indicate that they do not contain COCs at concentrations above ESLs. These soils are considered suitable for regrading or reuse on other portions of the property (Stellar, 2015a,b). The results of the soil profiling are presented in the reports included in Appendix A.

Deeper soil that may be excavated during corrective action and other construction activities will be stockpiled and evaluated for potential reuse on the site. This evaluation may require additional chemical testing of the material based on the proposed area or depth interval the soil came from or will be placed within. The need for additional testing, and the specific testing requirements, such as sampling frequency and chemical analyses, will be determined by the Engineer/Consultant.

If any soil is encountered that exhibits physical evidence of environmental impacts (e.g., sailing, sheen, or odors) will be segregated for characterization and off-site disposal. If off-site removal of stockpiled material is required, the procedures described in Section 5.1.4 will be implemented.

5.1.4 Off-Site Soil Disposal

If soil generated during construction activities is to be removed from the site, the soil will be characterized (i.e., tested for the presence of chemical constituents) before disposal, as required by the receiving facility. Appendix A presents the reports that summarize the profiling

completed on shallow soil for off-site disposal; however, the receiving facility may have additional testing requirements.

Deeper soils (e.g., PRB spoils) will require separate waste characterization and profiling. Based on previously collected soil data, it is not anticipated that deeper soils will require management as hazardous waste.

5.1.5 PRB Construction Spoils/Liquids Management

The procedures for management of construction spoils/liquids generated during construction of the PRB are presented in the Design Report's Technical Specifications (Amec Foster Wheeler, 2015). In addition to soil stockpile requirements discussed above, Contractor will implement procedures to limit the dermal contact with site groundwater by construction workers during excavations that extend into the saturated zone, due to the presence of VOCs in groundwater in the vicinity of the PRB. Preparations will be made to remove, store, characterize, and properly dispose of standing water from excavations and stockpiles during construction and trenching activities. All Best Management Practices (BMPs) will be installed and in place to control and collect soils/liquids and prevent them from migrating outside of the designated areas.

Appropriate precautions may include having a storage tank (e.g., frac tank) on site to temporarily contain decontamination water or groundwater that may be removed from the excavation. Contained water or groundwater may be disposed off-site at an appropriate facility or through other arrangements, such as on-site following a prearranged disposal agreement (e.g., with the City of Dublin Publically Owned Treatment Works). Prior to disposal, the water will be tested in accordance with requirements of the receiving facility. In the event that the dewatering effluent is to be disposed to the storm system, a permit (e.g., National Pollution Discharge Elimination System [NPDES]) from the Water Board will likely be required. Specific testing requirements and sampling frequency will be designated in the permit to discharge water.

5.1.6 Storm Water Management

The construction activities will be conducted under the existing and active SWPPP for the development project (CB&G, 2014), with a Waste Discharger Identification Number 2 01C371103. The storm water pollution controls specified in the SWPPP will be implemented to minimize the erosion and runoff of sediment in storm water, which could include VOC and arsenic-affected water and sediment. Storm water pollution controls at construction sites where the surface area of construction activities is greater than 1 acre in size, or for projects that disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required under the General Permit for Discharges of Storm Water Associated with Construction Activity (currently 2009-0009-DWQ as Modified by 2010-0014-DWQ; General Permit). The Construction General Permit requires that the SWPPP be

developed by Qualified SWPPP Developers and that implementation of the plan be performed by Qualified SWPPP Practitioners. The existing SWPPP was developed in accordance with the General Permit (CB&G, 2014).

Storm water pollution controls will be implemented by the Contractor(s) and will be based on BMPs. Specific practices that will be implemented to reduce the sediment load of storm water runoff from the site, include grading the site, installing storm water control devices (earth berms, silt fences, or other barriers) around the perimeter of unpaved portions of the site until construction is completed, and protecting existing catch basins with silt fences or gravel bags. In addition, all contractors will store fuel and chemicals in such a manner that prevents accidental spills from impacting storm water (e.g., within secondary containment).

5.1.7 Site Access and Security

Vehicle and personnel access will be controlled in areas where soil will be disturbed. Caution tape, cones, fencing, steel plates, or other measures will be used to clearly designate the active work area and to prevent access by the public. Stockpiles of excavated soil will be protected as described in Section 5.1.2 and secured by temporary fences or other means to prevent unauthorized access.

The site is bounded by secure perimeter fencing preventing unauthorized access, which will not be altered or removed without the approval of Owner. Contractors will not damage the perimeter fencing. Should removal or modification of perimeter fencing be necessary to facilitate construction, a temporary security fencing plan and fencing replacement plan must be developed and approved by the Owner. The plan will include details for replacement of perimeter fencing and will conform to local building codes.

5.2 UNANTICIPATED SUBSURFACE CONDITIONS

It is unlikely, but possible, that unknown, historical subsurface features and structures may remain at the site. If present, these structures or features may be encountered during construction activities. Unanticipated subsurface conditions may include, but are not limited to, the following items:

- Slabs and piping associated with former aboveground storage tanks;
- Underground storage tank(s) (USTs);
- Concrete vault(s);
- Underground piping; or
- Chemically impacted soil (e.g., with staining, sheen, or odor).

Whenever unanticipated conditions are encountered, Owner and/or Contractor(s) will stop work in that area, secure the work area, and evaluate the situation before any further action is taken. The Owner's workers and/or Contractor will notify the Owner's Project Manager if unanticipated surface conditions are encountered; the Project Manager will be responsible for

notifying the appropriate agency, as necessary (see Section 4.2). If any subsurface structures are encountered the CUPA must be immediately notified; if any chemically impacted soil is encountered, ACDEH must be immediately notified.

If visually impacted soil is encountered, following communication with ACDEH, it will be removed from the excavation and segregated from other site soil under the oversight of Engineer/Consultant. The removal and segregation of visually impacted soil will be conducted as not to limit the progress of excavation activities or work flow at the site, if possible. It may be necessary to notify BAAQMD regarding excavation of contaminated soil as required in accordance with Regulation 8, Rule 40, and exemption Regulation 2 Rule 5-110.

If significant odors are encountered, work will stop immediately and the work area will be covered and secured. A log will be maintained of any complaints received by the public, and ACDEH will be immediately notified if any odor complaints are logged.

6.0 ADMINISTRATION OF THE SITE MANAGEMENT PLAN

This section discusses responsibilities for managing this CSMP and the circumstances under which this CSMP may be modified.

6.1 RESPONSIBILITIES

Owner will oversee implementation of this CSMP at the site. The Owner's workers and Contractor(s) will be responsible for adhering to this CSMP, following project specifications, and maintaining job and site safety. Each Contractor also is responsible for providing a copy of the CSMP to its subcontractors. Owner and/or its representative may observe construction activities, but are not responsible for directing/supervising the contractor's operations/work.

6.2 MODIFICATIONS OF SITE MANAGEMENT PLAN

This CSMP is based on current conditions at the property. In addition to modifying or amending this CSMP after redevelopment of the property is complete to address long-term site conditions, it may be necessary to modify this CSMP from time to time for any of several reasons, including:

- Adaptation for use as a final Site Management Plan following development;
- Change in property use;
- Change in understanding of environmental conditions (e.g., newly identified chemicals);
- Intrusive activity that is not addressed by this CSMP; or
- New legal or regulatory requirements.

6.3 DOCUMENTATION

Records will be kept to document the off-site removal of soil during construction activities. Additionally, any previously unidentified subsurface conditions encountered during construction activities will be documented, and also copies will be kept of any exposure assessments performed and their supporting analyses to support similar future work activities. A log will be maintained of any complaints received by the public and, as noted above, ACDEH will be immediately notified if any odor complaints are logged.

A copy of this CSMP will be present at the site during construction activities. Additionally, a copy will be kept in the Environmental Field Specialist's office as a reference for future maintenance activities.

7.0 SCOPE, REPRESENTATIONS, AND LIMITATIONS

This CSMP was developed exclusively to manage worker exposure to residual chemicals (i.e., VOCs) in soil, soil vapor, and groundwater at the site during construction activities. This CSMP does not address issues related to other chemicals or media that may be encountered during construction including, but not limited to, demolition and construction debris, asphalt, concrete, asbestos-containing building materials, lead-based paint, or any chemicals brought on-site by construction workers. If such materials are encountered during a construction project, each Contractor is responsible for complying with all applicable laws pertaining to the handling and disposal of these materials.

This CSMP is based on current known site conditions and current laws, policies, and regulations. No representation is made to any present or future developer or owner of the site or portions of the site with respect to future site conditions, other than those specifically identified within this report.

8.0 REFERENCES

- ACDEH (Alameda County Health Care Services Agency), 2013. Fuel Leak Case No. RO0003014 and GeoTracker Global ID T00000001616, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard and 6707 Golden Gate Drive, Dublin, California, 94568, August 16.
- AMEC Environment & Infrastructure, Inc. (AMEC), 2014a. Final Feasibility Study and Corrective Action Plan, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard and 6707 Golden Gate Drive, Dublin, California, Fuel Leak Case No. RO003014, May 1.
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California Department of Toxic Substances Control (DTSC), 2013. Preliminary Endangerment Assessment Guidance Manual, January 1994, Interim Final – Revised October 2013.

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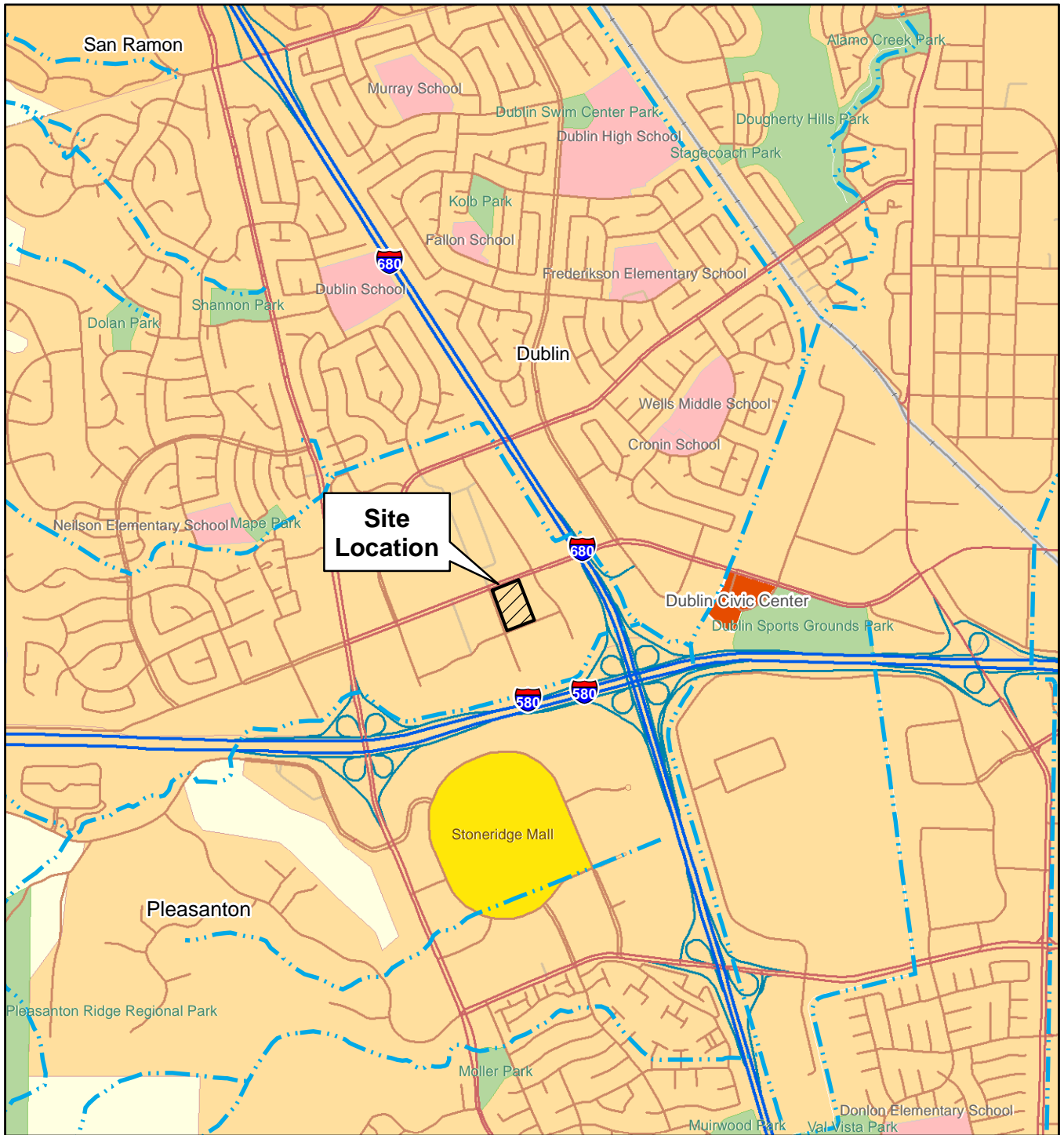
Duvergé, Dylan Jacques, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region; a thesis submitted to the faculty of San Francisco State University In partial fulfillment of the requirements for the degree, December.

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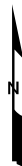
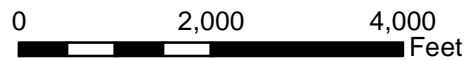
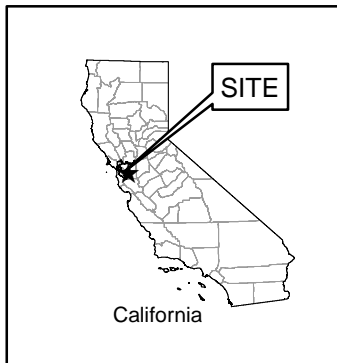
Stellar, 2015b. Results of Soil Profiling for Health and Safety Evaluation and Off-Site Disposal in Support of Redevelopment Activity at 7544 Dublin Blvd, Dublin, California, June 17.



FIGURES



Street map from ESRI, 2007.




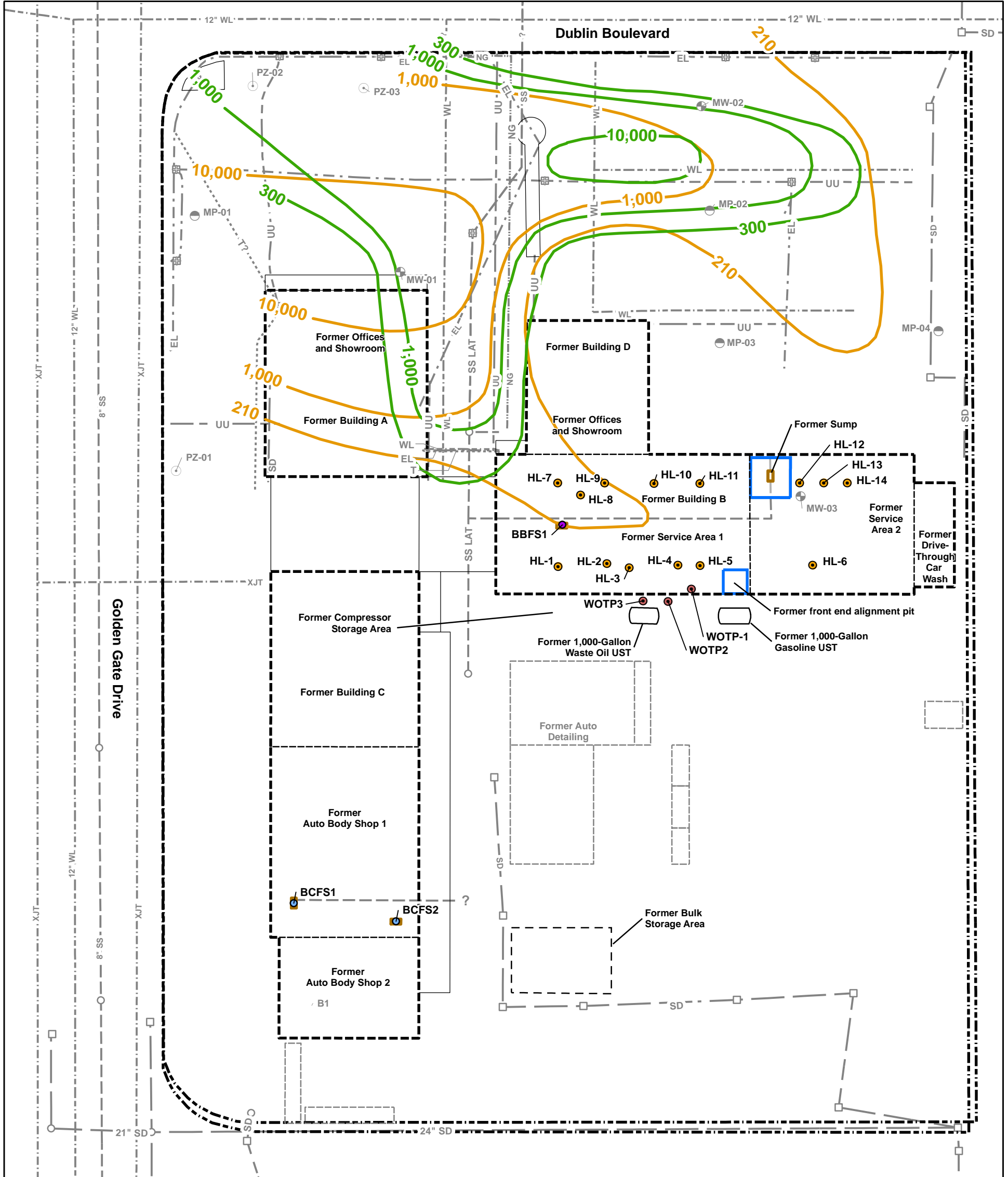
<p>SITE LOCATION MAP Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California</p>		
<p>Date: 08/20/2015</p>	<p>Project No. OD14170800.01</p>	

Figure 1

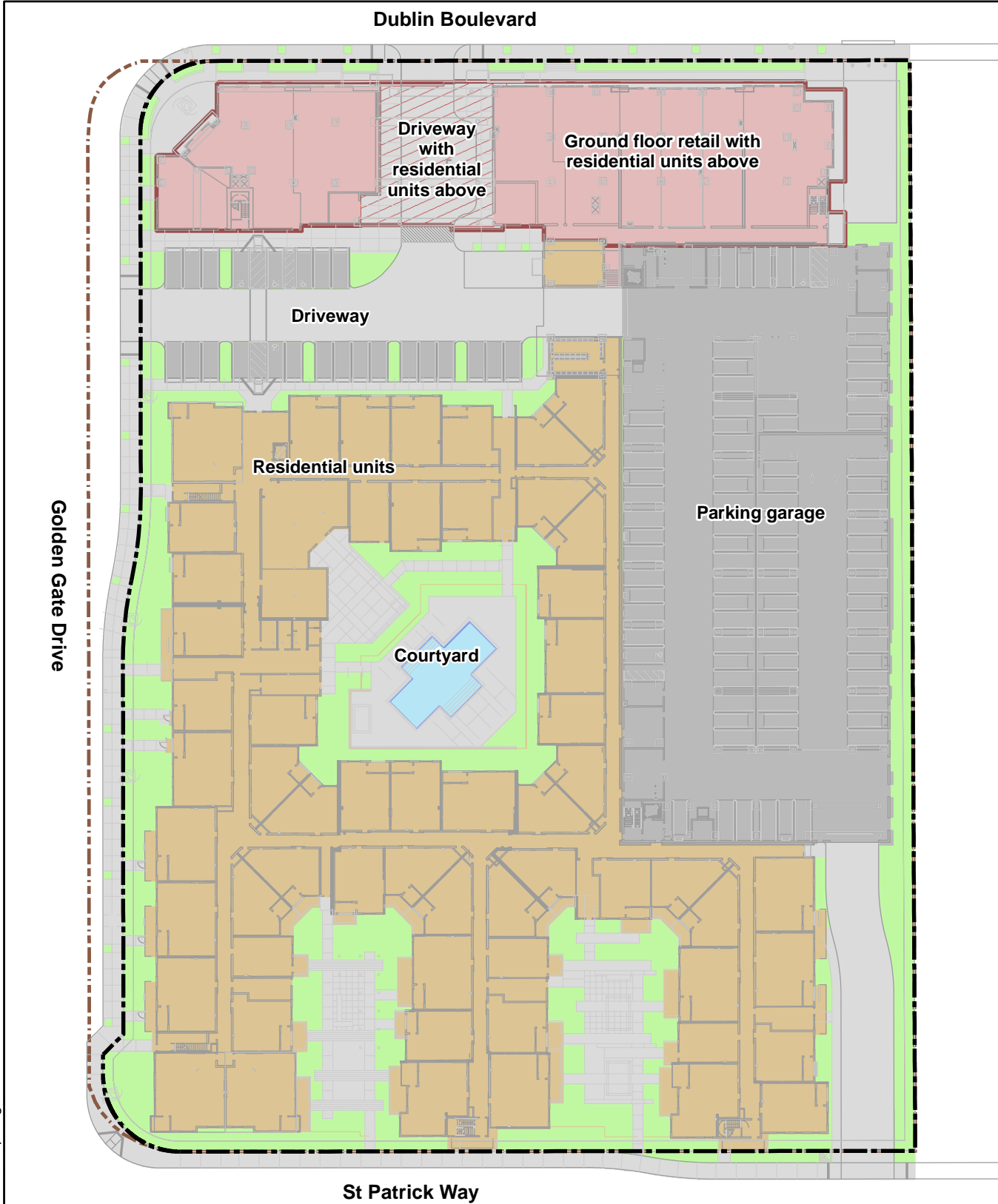
S:\OD14170800\task_01\15_0820_smp_fig_01_SLM.mxd



Explanation		Approximate former sump location		Abbreviation: bgs = below ground surface µg/m³ = micrograms per cubic meter F.E. Pit or FEPIT = Front end alignment pit UST = underground storage tank
210	Approximate line of equal PCE concentration in µg/m³		Approximate former sump location	
1,000	Approximate line of equal TCE concentration in µg/m³		Storm drain inlet	
	Building B former sump (BBFS) confirmation soil sample location		Manhole	
	Building C former sump (BCFS) confirmation soil sample location		Utility vault	
	Waste oil tank pipe (WOTP) confirmation soil sample location		Electric line	
	Hydraulic lift (HL) confirmation soil sample location		Natural gas line	
	Piezometer location (destroyed in December 2014)		Sanitary sewer line	
	Shallow monitoring well location (destroyed in August or December 2014)		Sanitary sewer lateral line	
	Multi-port monitoring well (3-channel) location (destroyed in December 2014)		Storm drain line	
	Approximate excavation boundary (2011)		Telecommunications line	
	Former building envelope (demolished December 2014)		Suspected telecommunications line	0 25 50 APPROXIMATE SCALE IN FEET
	Approximate property line		Undifferentiated utility line	
	Former drain line		Joint trench	SITE PLAN WITH FORMER BUILDINGS AND FEATURES Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California
			Water line	

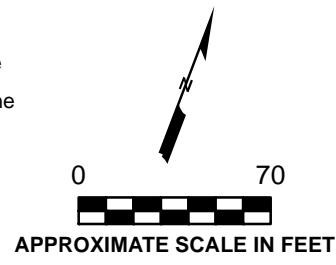


Figure 2



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- Explanation
- Future property line
 - Existing property line



**SITE PLAN WITH PLANNED
 NEW CONSTRUCTION**
 Former Crown Chevrolet North Parcel
 7544 Dublin Boulevard
 Dublin, California



Figure
3

Date: 08/20/2015 Project No. OD14170800.01



APPENDIX A

Soil Profiling Reports

May 5, 2015

Mr. Pete Beritzhoff
Bay West Development
2 Henry Adams Street
Suite #450
San Francisco, CA 94103

Subject: Results of Soil Profiling for Health and Safety Evaluation and Off-Site Disposal in Support of Redevelopment Activity at 7544 Dublin Blvd, Dublin, California.

INTRODUCTION

Dear Mr. Beritzhoff

Stellar Environmental Solutions, Inc. (Stellar Environmental) is pleased to provide Bay West Development with this technical documentation report presenting the findings of the pre-grubbing excavation soil sampling investigation in the area of the planned redevelopment. The development area required demolition of existing parking areas and buildings including a former fuel tank and waste oil tank area. According to the grading plans provided by CBG the project area is approximately 337,500 square feet (sf) which includes 42,330 sf of existing building areas that will be demolished. The existing buildings, concrete and asphalt had been demolished and removed from the site prior to the time of the profile sampling discussed in this report.

The principal objective of this sampling work was conducted to characterize the soil for both offsite disposal options and to identify and evaluate any potential site worker exposure issues that may be present during upcoming construction/excavation activities.

Figure 1 is a site location map. The boring locations are shown on Figure 2.

PRE-FIELD WORK ELEMENTS

This task encompasses the pre-field work elements of the project. Pre-fieldwork subtasks included:

- Schedule the analytical laboratory subcontractor;
- Preparation of project Health and Safety Plan in conformance with CalOSHA regulation including identifying route to the nearest hospital.

The specific project objectives for this project included:

- Collect two 4-point composite samples sets from 0-1 foot below ground surface (bgs);
- Evaluate the data against regulatory consideration for exposure and offsite disposal;
- Identify potential site worker exposure that may be present during upcoming construction/excavation activities; and
- Prepare this letter documentation report of the analytical results of the soil sampling, with conclusions and recommendations based on the findings.

SOIL SAMPLING PROTOCOL

Based upon a total estimated export volume of 380 CYs (570 tons using a 1 to 1.5 multiplier for CY to tons), two 4-point composite samples were required (a minimum of one 4-point sample per 500 tons) to adequately profile the soil soils for offsite disposal to a California Class II landfill facility and make an assessment of the potential health risk concerns to site construction workers. This sampling provides sufficient density and representative coverage of the current soil conditions to characterize the site. Because the shallow upper foot of soil to be grubbed and graded likely contains some debris (asphalt, concrete, roots, etc.) making it less undesirable for beneficial re-use, the soil material is assumed to be required to be disposed of to a Class II landfill facility.

The soil samples were collected by Henry Pietropaoli, P.G, of Stellar Environmental, on April 20, 2015. The weather was clear and sunny. The samples were collected using a stainless-steel shovel/trowel to dig a 1 foot deep pothole from which a representative section of soil was collected from the surface to 1 foot deep. The shovel was decontaminated between potholes with a clean water rinse. Following sampling, each pothole was backfilled with the removed soil. Four potholes were dug to collect soil from which the 4-point composite sample was made.

Compositing entailed removal of any larger obvious rocks and organic debris from the retained soil sections and homogenizing the mix in a clean plastic bag. The mix was then placed into a 16-ounce laboratory-supplied glass jar, labeled and transferred to a cooler chilled with ice for transport to the analytical laboratory.

Site Soil Observations

The site surface soils in the north and eastern portion of the area were observed to consist primarily of gravel baserock in a light brown fine sandy matrix that extended to a depth of 3- 6 inches that was underlain by black clay. Soil in the southwestern quadrant consisted of gravel baserock in light brown fine sandy matrix that extended to a depth of 6- 8 inches that was underlain by light brown silty sand. The footprint areas of the former buildings were slightly mounded, 6-8 inches higher than the surrounding site area.

Attachment A contains photodocumentation of the field activity. The locations of the sample points are shown on Figure 2.

ANALYTICAL METHODS

Laboratory Analyses

The analytical suite below is based on the general site history and typical regulated California landfill facility requirements.

The two composite samples collected were analyzed by the following the analytical method:

- Total extractable hydrocarbons – diesel and motor oil and hydraulic oil ranges (TEH-d/mo/ho) by EPA Method 8015M;
- Total volatile hydrocarbons – gasoline range (TVHg) by EPA Method 8020;
- Volatile Organic Compounds (VOCs) by EPA Method 8260 (includes benzene, toluene, ethylbenzene and xylenes);
- Semi Volatile Organic Compounds (SVOCs) by EPA Method 8270;
- Title 22 (17 listed metals) by EPA Method 6000 or 7000 series;
- Organochlorine Pesticides by EPA Method 8081;
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082; and
- California Waste Extraction Test (WET) analyses for the metal chromium (Cr).

Upon collection, soil samples were labeled and immediately placed in an ice chest with ice at approximately 4°C and transported by courier under chain-of-custody to McCampbell Analytical Laboratory of Pittsburg, California, a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory.

Re-analysis by the CA Waste Extraction Test (CA-WET) of both samples for soluble Cr was required to make the hazardous vs. non-hazardous waste classification, pertaining to offsite disposal, because the total concentration exceeded the non-hazardous landfill screening criteria, (i.e., 10 times the Soluble Threshold Limit Concentrations [STLC]), or 50 mg/kg.

ANALYTICAL RESULTS OF SOIL SAMPLING

The following is a brief summary of the sample analytical results discussed in the context of comparative regulatory criteria published by the California Regional Water Quality Control Board

(Water Board) commercial and construction/trench worker direct exposure Environmental Screening Limits (ESLs) and California landfill disposal guidelines:

Total Petroleum Hydrocarbons as Gasoline, Diesel and Motor Oil-Hydraulic Oil

Both samples contained trace concentrations of TEHd and only sample C1 contained low concentrations of TEHmo-ho but was below the most conservative Water Board residential ESL exposure criteria and the direct exposure construction/trench worker ESL criteria. No TPH as gasoline was detected in either sample.

Volatile Organic Compounds (VOCs)

No VOCs, including those associated with petroleum hydrocarbons (benzene, toluene, ethylbenzene, xylenes and methyl-tert butyl ether (MTBE)) were detected at concentrations above the laboratory detection limits in either of the samples.

Title 22 List Metals

The soils showed elevated chromium (Cr) in both samples that required additional analysis by the CA Waste Extraction Test (WET) method to determine whether there were offsite landfill disposal constraints.

The sampling results showed concentrations of the metal arsenic (As) in both samples to be above the Water Board ESL criteria pertaining to risk of direct exposure to construction/trench workers.

CA Waste Extraction Test Results

The results the CA WET analysis of both sample showed no Cr solute at or exceeding the 5 mg/L, hazardous waste threshold for soluble chromium. Therefore the soil may be disposed to a regulated or non-hazardous, at a California landfill facility and/or any acceptable unregulated/unclassified receiving facility that would like to use the soil.

Polychlorinated Biphenols (PCBs)

No PCBs were detected at concentrations above the laboratory detection limits.

Semi-Volatile Organic Hydrocarbons (SVOCs)

No SVOCs were detected at concentrations above the laboratory detection limits.

Organochlorine Pesticides

Only a trace concentration of the pesticide dichlorodiphenyldichloroethylene (p,p-DDE) was detected at a concentration above the laboratory detection limits but is below the Water Board residential and direct exposure ESLs

LABORATORY QUALITY ASSURANCE

Laboratory internal quality control (QC) procedures included analysis of method blanks, control spikes, and surrogate spiked samples. The certified analytical laboratory reports and chain of custody records are contained in Attachment B.

REGULATORY CONSIDERATIONS

Stellar Environmental compared the soil data to the relevant Regional Water Quality Control Board (Water Board) Environmental Screening level (ESL) criteria for shallow soil in commercial /industrial areas where groundwater is considered a drinking water source (Water Board 2013). The analytical results of this soil evaluation showed no significant contaminant concentrations of regulatory concern pertaining to risks to human health and the environment, although the metal arsenic was, as is commonly the case, above its ESL. The relevant regulatory criteria are discussed here for information purposes. The landfill and regulatory considerations regarding detected contaminant of concern identified in soil that pertain to this site project include:

- Hazardous concentration thresholds defining the lead as hazardous (California Administrative Code Title 22) and offsite disposal and analytical considerations;
- Regional Water Quality Control Board (Water Board) guidance related to whether additional investigations should be considered ESLs; and
- Health and Safety consideration established by the Occupational Safety and Health Administration (OSHA).

Hazardous Concentration Thresholds: Soil sample analytical results are also compared to both total and soluble concentration-based criteria (Total Threshold Limit Concentrations [TTLCs] and Soluble Threshold Limit Concentrations [STLCs]). A soil that exceeds the TTLC is by definition a hazardous waste. STLC is used to define the “soluble fraction” that classifies a “waste” as California hazardous waste. This is only applied to waste soil that is being considered for offsite disposal to a landfill. Non-hazardous disposal facilities utilize a rule-of-thumb guideline to interpret total contaminant concentrations relative to the STLC hazardous waste criteria. Soils or waste with total contaminant concentrations in excess of 10 times the STLC have the potential to be classified as hazardous and are required to be analyzed by the California Waste Extraction Test (WET) and if the

subsequent solute analysis results exceeds 5 mg/L, (the STLC for Cr), the soil or waste must then be disposed of to a California Class I hazardous waste facility. The Class I landfill would then also require an additional Toxic Characteristic Leaching Procedure (TCLP) test to determine whether stabilization of the waste will be required. In this case, chromium in both samples exceeded 10x the STLC, having a concentration greater than 50 mg/kg and therefore the WET was required, however both samples passed the WET and the soil can therefore be disposed to a non-hazardous landfill facility or even to an unclassified reuse facility if a recipient site can be found.

Water Board Considerations: The Water Board established ESLs as conservative numerical standards for evaluating the likelihood of environmental impact, specifically to groundwater. ESLs are screening-level criteria for soil and groundwater, designed to be generally protective of drinking water resources and aquatic environments. There are also ESLs for soil gas to address the potential for indoor air intrusion from volatile organic compounds off-gassing from soil or groundwater but those are not relevant here. ESLs are not cleanup criteria (i.e., health-based numerical values or disposal-based values). The ESLs are conservative criteria used to evaluate if remediation and/or additional investigation are needed to determine potential impacts to human health or the environment, particularly groundwater, which the Water Board has a mandate to protect.

In the most preliminary stage (Tier 1, as utilized in this assessment), direct “look-up” tables provide numerical criteria, below which contamination is generally determined to have little or no significant risk to human receptors or the environment. The Tier 1 ESL values for soil are used depending on various site factors (land use: commercial/industrial versus residential), soil depth, lithology, and groundwater usage) and various risk pathways (direct exposure, groundwater protection, indoor air impacts, etc.). Exceedance of ESLs may warrant additional actions, such as more extensive sampling events, and/or remediation is warranted.

For the construction/trench worker direct exposure scenario, only arsenic was detected above the ESL of 10 mg/kg in sample C2 (at 15 mg/kg). The naturally-occurring (background) concentrations of arsenic in soil throughout the San Francisco Bay Area commonly ranges from 10 mg/kg to 20 mg/kg, with 11 mg/kg arsenic currently designated by the Water Board as the California background concentration. Exceeding the ESL for arsenic in sample C2 warrants dermal, inhalation protection and dust mitigation measures during critical earthwork activities. Dermal exposure is easy to mitigate by standard practices of hand washing, etc. Inhalation exposure is only a risk when significant fugitive dust allows particulates into the breathing zone. Future dust can be controlled by standard construction phase wetting practices.

OSHA Considerations: There were no contaminants detected in the site soils at concentrations in excess of California Occupational Safety and Health Administration (Cal-OSHA) Title 8 published “threshold criterion” that dictate whether air (particulates, dusts, fumes, mists, vapors, and gases)

monitoring is necessary to document adherence to site occupant and worker safety and health standards during redevelopment including construction, excavations and demolition activities.

When standard industry Best Management Practices (BMPs) are implemented (to minimize fugitive dust emissions), during development activities, the potential is very low for worker or bystander exposure to airborne dust, even during construction activity. Worker exposure limits for various contaminants by dermal, ingestion or inhalation are set by the U.S.OSHA, as well as the State OSHA (Cal-OSHA). The most stringent criterion for dust inhalation is the OSHA Permissible Exposure Level (PEL) = 8-hour time-weighted average per cubic meter air (mg/m^3).

SUMMARY AND CONCLUSIONS

Stellar Environmental compared the analytical concentrations to the applicable Water Board ESL and criterion for applicable exposure risk scenario and for offsite landfill disposal and have arrived at the following conclusions:

- There were no petroleum hydrocarbons, volatile organochlorine pesticides, PCBs, or metals detected in excess of any regulatory screening levels pertaining to risks to human health or the environment.
- All of the analyzed compounds were documented at concentrations below hazardous levels for all compounds. All compounds were below ESLs except the metal except arsenic (As) which exceeded the Water Board ESL as it pertains to construction/trench worker direct exposure risk. Exceedance of the ESL for As in sample C2 may warrant a fugitive dust abatement plan with best management practices to mitigate the dermal and inhalation worker exposure scenario. This dust mitigation monitoring measures during earthwork activities could be established at the onset of the excavation phase to demonstrate that the BMP are mitigating the fugitive dust. Other than best management practices to minimize dust and dermal contact, discussed below, no additional health and safety precautions should be required during the earth moving operations.
- Both soil samples Cr concentrations above the 50 mg/kg that stipulates the samples be re-analyzed by the CA WET method to determine the waste classification. The WET solute did not meet or exceed the concentration of 5 mg/l which would classify it as hazardous Class I disposal and thus the soil is classified as non-hazardous and may be disposed to a regulated Class II facility or any acceptable unregulated/unclassified or receiving facility that would like to use the soil.
- Standard construction phase Best Management practices to mitigate fugitive dust should be employed during redevelopment activities.

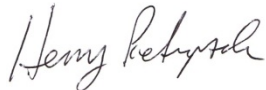
RECOMMENDATIONS

The following are recommendations made to ensure the health and safety to both site occupants and construction workers during redevelopment activities include:

- Best Management Practices such as gloves and water spray for dust control should always be employed during earthwork to minimize the potential risk of exposure via dermal, ingestion or inhalation routes to the one identified contaminant of concern, arsenic (in soil) .
- Particulate air sampling could be conducted during earth moving activities as part of health and safety monitoring to document usage of proper dust control measures to mitigate potential exposure risk.
- Work upwind of soils being excavated (or plan the work on a non-windy day) with active dust controls in effect (water spray suppression on-hand).
- During soil excavation and grading open areas, ground and soil stockpiles should be wetted or covered if fugitive dust emissions are observed.
- Soil stockpiles must be protected against the possibility of children or other non-construction persons contacting the soil and to prevent fugitive dust emissions. This can be achieved by secure site fencing and securing (adequately weighted down) stockpiled soil beneath heavy plastic (Visqueen) sheeting cover (6-mil nominal).
- Construction vehicle wheels leaving the site should be inspected and brushed/cleaned as necessary to ensure that soils are not incidentally tracked offsite.

Stellar Environmental appreciates the opportunity to provide Bay West Development with the requested technical services. If you have any questions, please feel free to call us at 510-644-3123.

Sincerely,



Henry Pietropaoli, P.G.
Project Manager



Richard Makdisi, P.G.
Principal Geochemist/President

FIGURES



2015-28-01



SITE LOCATION MAP

7544 Dublin Blvd
Dublin, California

By: MJC

APRIL 2015

Figure 1





LEGEND

- - - Subject property boundary
- Composite sample collection point

0 130
SCALE: 1" = 130 FEET



LOCATION OF DISPOSAL PROFILE COMPOSITE SAMPLING POINTS

7544 Dublin Blvd
Dublin, California

By: MJC

APRIL 2015

Figure 2



2015-28-02

ANALYTICAL SUMMARY TABLE

**Analytical Results of Four Point Composite Soil Profile Sampling
Redevelopment Activity at 7544 Dublin Blvd,
Dublin, California**

Sample ID	Depth (inches bg)	Title 22 Metals (mg/kg)		Chromium CA-WET Result (mg/L)	TPH motor oil - hydraulic oil (mg/kg)	TPH-diesel (mg/kg)	TPH-gas MBTEX (mg/kg)	Pesticides and PCBs * (mg/kg)	SVOCs
		Arsenic	Chromium						
C1	0-12	7.2	<u>56</u>	0.43	280	1.1	All ND	DDE = 0.017	All ND
C2	0-12	15	<u>65</u>	0.11	<5.0	<5.0	All ND	All ND	All ND
ESL (commercial/industrial designation)		1.6	2,500	NA	100,000	1,100	various	DDE = 7.0	various
ESL (construction/trench worker exposure)		10	2,500	NA	28,000	900	various	DDE = 50	various

Notes: TPH = total petroleum hydrocarbons; MBTEX = methyl tert-butyl ether, benzene, toluene, ethylbenzene, and total xylenes; SVOCs = semi-volatile organic compounds; STLC = Soluble Threshold Limit Concentration; ND = no detection above laboratory reporting limit; NA = not analyzed or not applicable; mg/kg = milligrams per kilogram; mg/L = milligrams per liter; bg = below grade; ESL = Environmental Screening Level for shallow soil in commercial /industrial areas where groundwater is considered a drinking water source (Water Board 2013); Results in **bold-face** type exceed applicable ESL ; Results underlined show concentration at or exceeds 50 mg/kg (>10x the Cr STLC of 5 mg/kg) and required additional analysis by CA WET; CA-WET = California waste extraction test (> 5 mg/L Cr elevates material to hazardous waste in California); NLP = No level published; * = only the pesticide dichlorodiphenyldichloroethylene (p,p-DDE) was detected

ATTACHMENT A

Photo-Documentation



Subject: Recently graded site

Site: 7544 Dublin Blvd, Dublin, California

Date Taken: April 20, 2015

Project No.: SES 2015-28

Photographer: H. Pietropaoli

Photo No.: 01



Subject: Location of composite sample point

Site: 7544 Dublin Blvd, Dublin, California

Date Taken: April 20, 2015

Project No.: SES 2015-28

Photographer: H. Pietropaoli

Photo No.: 02

ATTACHMENT B

Certified Analytical Lab Report and Chain-of-Custody Documentation



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1504840

Report Created for: Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710

Project Contact: Richard Makdisi
Project P.O.:
Project Name: #2015-28; Soil Profile

Project Received: 04/21/2015

Analytical Report reviewed & approved for release on 04/28/2015 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
WorkOrder: 1504840

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	sample diluted due to high organic content.
a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC23	103903

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.020	20	04/24/2015 07:44
a-BHC	ND	0.020	20	04/24/2015 07:44
b-BHC	ND	0.020	20	04/24/2015 07:44
d-BHC	ND	0.020	20	04/24/2015 07:44
g-BHC	ND	0.020	20	04/24/2015 07:44
Chlordane (Technical)	ND	0.50	20	04/24/2015 07:44
a-Chlordane	ND	0.020	20	04/24/2015 07:44
g-Chlordane	ND	0.020	20	04/24/2015 07:44
p,p-DDD	ND	0.020	20	04/24/2015 07:44
p,p-DDE	ND	0.020	20	04/24/2015 07:44
p,p-DDT	ND	0.020	20	04/24/2015 07:44
Dieldrin	ND	0.020	20	04/24/2015 07:44
Endosulfan I	ND	0.020	20	04/24/2015 07:44
Endosulfan II	ND	0.020	20	04/24/2015 07:44
Endosulfan sulfate	ND	0.020	20	04/24/2015 07:44
Endrin	ND	0.020	20	04/24/2015 07:44
Endrin aldehyde	ND	0.020	20	04/24/2015 07:44
Endrin ketone	ND	0.020	20	04/24/2015 07:44
Heptachlor	ND	0.020	20	04/24/2015 07:44
Heptachlor epoxide	ND	0.020	20	04/24/2015 07:44
Hexachlorobenzene	ND	0.20	20	04/24/2015 07:44
Hexachlorocyclopentadiene	ND	0.40	20	04/24/2015 07:44
Methoxychlor	ND	0.020	20	04/24/2015 07:44
Toxaphene	ND	1.0	20	04/24/2015 07:44
Aroclor1016	ND	1.0	20	04/24/2015 07:44
Aroclor1221	ND	1.0	20	04/24/2015 07:44
Aroclor1232	ND	1.0	20	04/24/2015 07:44
Aroclor1242	ND	1.0	20	04/24/2015 07:44
Aroclor1248	ND	1.0	20	04/24/2015 07:44
Aroclor1254	ND	1.0	20	04/24/2015 07:44
Aroclor1260	ND	1.0	20	04/24/2015 07:44
PCBs, total	ND	1.0	20	04/24/2015 07:44

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	112	70-130	04/24/2015 07:44

Analyst(s): SS

Analytical Comments: a3

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC23	103903

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/24/2015 06:30
a-BHC	ND	0.0010	1	04/24/2015 06:30
b-BHC	ND	0.0010	1	04/24/2015 06:30
d-BHC	ND	0.0010	1	04/24/2015 06:30
g-BHC	ND	0.0010	1	04/24/2015 06:30
Chlordane (Technical)	ND	0.025	1	04/24/2015 06:30
a-Chlordane	ND	0.0010	1	04/24/2015 06:30
g-Chlordane	ND	0.0010	1	04/24/2015 06:30
p,p-DDD	ND	0.0010	1	04/24/2015 06:30
p,p-DDE	0.0017	0.0010	1	04/24/2015 06:30
p,p-DDT	ND	0.0010	1	04/24/2015 06:30
Dieldrin	ND	0.0010	1	04/24/2015 06:30
Endosulfan I	ND	0.0010	1	04/24/2015 06:30
Endosulfan II	ND	0.0010	1	04/24/2015 06:30
Endosulfan sulfate	ND	0.0010	1	04/24/2015 06:30
Endrin	ND	0.0010	1	04/24/2015 06:30
Endrin aldehyde	ND	0.0010	1	04/24/2015 06:30
Endrin ketone	ND	0.0010	1	04/24/2015 06:30
Heptachlor	ND	0.0010	1	04/24/2015 06:30
Heptachlor epoxide	ND	0.0010	1	04/24/2015 06:30
Hexachlorobenzene	ND	0.010	1	04/24/2015 06:30
Hexachlorocyclopentadiene	ND	0.020	1	04/24/2015 06:30
Methoxychlor	ND	0.0010	1	04/24/2015 06:30
Toxaphene	ND	0.050	1	04/24/2015 06:30
Aroclor1016	ND	0.050	1	04/24/2015 06:30
Aroclor1221	ND	0.050	1	04/24/2015 06:30
Aroclor1232	ND	0.050	1	04/24/2015 06:30
Aroclor1242	ND	0.050	1	04/24/2015 06:30
Aroclor1248	ND	0.050	1	04/24/2015 06:30
Aroclor1254	ND	0.050	1	04/24/2015 06:30
Aroclor1260	ND	0.050	1	04/24/2015 06:30
PCBs, total	ND	0.050	1	04/24/2015 06:30

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	90	70-130	04/24/2015 06:30

Analyst(s): SS



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC28	103881

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/28/2015 12:44
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/28/2015 12:44
Benzene	ND	0.0050	1	04/28/2015 12:44
Bromobenzene	ND	0.0050	1	04/28/2015 12:44
Bromochloromethane	ND	0.0050	1	04/28/2015 12:44
Bromodichloromethane	ND	0.0050	1	04/28/2015 12:44
Bromoform	ND	0.0050	1	04/28/2015 12:44
Bromomethane	ND	0.0050	1	04/28/2015 12:44
2-Butanone (MEK)	ND	0.020	1	04/28/2015 12:44
t-Butyl alcohol (TBA)	ND	0.050	1	04/28/2015 12:44
n-Butyl benzene	ND	0.0050	1	04/28/2015 12:44
sec-Butyl benzene	ND	0.0050	1	04/28/2015 12:44
tert-Butyl benzene	ND	0.0050	1	04/28/2015 12:44
Carbon Disulfide	ND	0.0050	1	04/28/2015 12:44
Carbon Tetrachloride	ND	0.0050	1	04/28/2015 12:44
Chlorobenzene	ND	0.0050	1	04/28/2015 12:44
Chloroethane	ND	0.0050	1	04/28/2015 12:44
Chloroform	ND	0.0050	1	04/28/2015 12:44
Chloromethane	ND	0.0050	1	04/28/2015 12:44
2-Chlorotoluene	ND	0.0050	1	04/28/2015 12:44
4-Chlorotoluene	ND	0.0050	1	04/28/2015 12:44
Dibromochloromethane	ND	0.0050	1	04/28/2015 12:44
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/28/2015 12:44
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/28/2015 12:44
Dibromomethane	ND	0.0050	1	04/28/2015 12:44
1,2-Dichlorobenzene	ND	0.0050	1	04/28/2015 12:44
1,3-Dichlorobenzene	ND	0.0050	1	04/28/2015 12:44
1,4-Dichlorobenzene	ND	0.0050	1	04/28/2015 12:44
Dichlorodifluoromethane	ND	0.0050	1	04/28/2015 12:44
1,1-Dichloroethane	ND	0.0050	1	04/28/2015 12:44
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/28/2015 12:44
1,1-Dichloroethene	ND	0.0050	1	04/28/2015 12:44
cis-1,2-Dichloroethene	ND	0.0050	1	04/28/2015 12:44
trans-1,2-Dichloroethene	ND	0.0050	1	04/28/2015 12:44
1,2-Dichloropropane	ND	0.0050	1	04/28/2015 12:44
1,3-Dichloropropane	ND	0.0050	1	04/28/2015 12:44
2,2-Dichloropropane	ND	0.0050	1	04/28/2015 12:44
1,1-Dichloropropene	ND	0.0050	1	04/28/2015 12:44

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC28	103881

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	04/28/2015 12:44
trans-1,3-Dichloropropene	ND	0.0050	1	04/28/2015 12:44
Diisopropyl ether (DIPE)	ND	0.0050	1	04/28/2015 12:44
Ethylbenzene	ND	0.0050	1	04/28/2015 12:44
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/28/2015 12:44
Freon 113	ND	0.0050	1	04/28/2015 12:44
Hexachlorobutadiene	ND	0.0050	1	04/28/2015 12:44
Hexachloroethane	ND	0.0050	1	04/28/2015 12:44
2-Hexanone	ND	0.0050	1	04/28/2015 12:44
Isopropylbenzene	ND	0.0050	1	04/28/2015 12:44
4-Isopropyl toluene	ND	0.0050	1	04/28/2015 12:44
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/28/2015 12:44
Methylene chloride	ND	0.0050	1	04/28/2015 12:44
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/28/2015 12:44
Naphthalene	ND	0.0050	1	04/28/2015 12:44
n-Propyl benzene	ND	0.0050	1	04/28/2015 12:44
Styrene	ND	0.0050	1	04/28/2015 12:44
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/28/2015 12:44
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/28/2015 12:44
Tetrachloroethene	ND	0.0050	1	04/28/2015 12:44
Toluene	ND	0.0050	1	04/28/2015 12:44
1,2,3-Trichlorobenzene	ND	0.0050	1	04/28/2015 12:44
1,2,4-Trichlorobenzene	ND	0.0050	1	04/28/2015 12:44
1,1,1-Trichloroethane	ND	0.0050	1	04/28/2015 12:44
1,1,2-Trichloroethane	ND	0.0050	1	04/28/2015 12:44
Trichloroethene	ND	0.0050	1	04/28/2015 12:44
Trichlorofluoromethane	ND	0.0050	1	04/28/2015 12:44
1,2,3-Trichloropropane	ND	0.0050	1	04/28/2015 12:44
1,2,4-Trimethylbenzene	ND	0.0050	1	04/28/2015 12:44
1,3,5-Trimethylbenzene	ND	0.0050	1	04/28/2015 12:44
Vinyl Chloride	ND	0.0050	1	04/28/2015 12:44
Xylenes, Total	ND	0.0050	1	04/28/2015 12:44

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC28	103881

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	106	70-130		04/28/2015 12:44
Toluene-d8	122	70-130		04/28/2015 12:44
4-BFB	115	70-130		04/28/2015 12:44

Analyst(s): AK



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC28	103881

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/28/2015 12:06
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/28/2015 12:06
Benzene	ND	0.0050	1	04/28/2015 12:06
Bromobenzene	ND	0.0050	1	04/28/2015 12:06
Bromochloromethane	ND	0.0050	1	04/28/2015 12:06
Bromodichloromethane	ND	0.0050	1	04/28/2015 12:06
Bromoform	ND	0.0050	1	04/28/2015 12:06
Bromomethane	ND	0.0050	1	04/28/2015 12:06
2-Butanone (MEK)	ND	0.020	1	04/28/2015 12:06
t-Butyl alcohol (TBA)	ND	0.050	1	04/28/2015 12:06
n-Butyl benzene	ND	0.0050	1	04/28/2015 12:06
sec-Butyl benzene	ND	0.0050	1	04/28/2015 12:06
tert-Butyl benzene	ND	0.0050	1	04/28/2015 12:06
Carbon Disulfide	ND	0.0050	1	04/28/2015 12:06
Carbon Tetrachloride	ND	0.0050	1	04/28/2015 12:06
Chlorobenzene	ND	0.0050	1	04/28/2015 12:06
Chloroethane	ND	0.0050	1	04/28/2015 12:06
Chloroform	ND	0.0050	1	04/28/2015 12:06
Chloromethane	ND	0.0050	1	04/28/2015 12:06
2-Chlorotoluene	ND	0.0050	1	04/28/2015 12:06
4-Chlorotoluene	ND	0.0050	1	04/28/2015 12:06
Dibromochloromethane	ND	0.0050	1	04/28/2015 12:06
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/28/2015 12:06
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/28/2015 12:06
Dibromomethane	ND	0.0050	1	04/28/2015 12:06
1,2-Dichlorobenzene	ND	0.0050	1	04/28/2015 12:06
1,3-Dichlorobenzene	ND	0.0050	1	04/28/2015 12:06
1,4-Dichlorobenzene	ND	0.0050	1	04/28/2015 12:06
Dichlorodifluoromethane	ND	0.0050	1	04/28/2015 12:06
1,1-Dichloroethane	ND	0.0050	1	04/28/2015 12:06
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/28/2015 12:06
1,1-Dichloroethene	ND	0.0050	1	04/28/2015 12:06
cis-1,2-Dichloroethene	ND	0.0050	1	04/28/2015 12:06
trans-1,2-Dichloroethene	ND	0.0050	1	04/28/2015 12:06
1,2-Dichloropropane	ND	0.0050	1	04/28/2015 12:06
1,3-Dichloropropane	ND	0.0050	1	04/28/2015 12:06
2,2-Dichloropropane	ND	0.0050	1	04/28/2015 12:06
1,1-Dichloropropene	ND	0.0050	1	04/28/2015 12:06

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC28	103881

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	04/28/2015 12:06
trans-1,3-Dichloropropene	ND	0.0050	1	04/28/2015 12:06
Diisopropyl ether (DIPE)	ND	0.0050	1	04/28/2015 12:06
Ethylbenzene	ND	0.0050	1	04/28/2015 12:06
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/28/2015 12:06
Freon 113	ND	0.0050	1	04/28/2015 12:06
Hexachlorobutadiene	ND	0.0050	1	04/28/2015 12:06
Hexachloroethane	ND	0.0050	1	04/28/2015 12:06
2-Hexanone	ND	0.0050	1	04/28/2015 12:06
Isopropylbenzene	ND	0.0050	1	04/28/2015 12:06
4-Isopropyl toluene	ND	0.0050	1	04/28/2015 12:06
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/28/2015 12:06
Methylene chloride	ND	0.0050	1	04/28/2015 12:06
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/28/2015 12:06
Naphthalene	ND	0.0050	1	04/28/2015 12:06
n-Propyl benzene	ND	0.0050	1	04/28/2015 12:06
Styrene	ND	0.0050	1	04/28/2015 12:06
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/28/2015 12:06
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/28/2015 12:06
Tetrachloroethene	ND	0.0050	1	04/28/2015 12:06
Toluene	ND	0.0050	1	04/28/2015 12:06
1,2,3-Trichlorobenzene	ND	0.0050	1	04/28/2015 12:06
1,2,4-Trichlorobenzene	ND	0.0050	1	04/28/2015 12:06
1,1,1-Trichloroethane	ND	0.0050	1	04/28/2015 12:06
1,1,2-Trichloroethane	ND	0.0050	1	04/28/2015 12:06
Trichloroethene	ND	0.0050	1	04/28/2015 12:06
Trichlorofluoromethane	ND	0.0050	1	04/28/2015 12:06
1,2,3-Trichloropropane	ND	0.0050	1	04/28/2015 12:06
1,2,4-Trimethylbenzene	ND	0.0050	1	04/28/2015 12:06
1,3,5-Trimethylbenzene	ND	0.0050	1	04/28/2015 12:06
Vinyl Chloride	ND	0.0050	1	04/28/2015 12:06
Xylenes, Total	ND	0.0050	1	04/28/2015 12:06

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC28	103881

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	106	70-130		04/28/2015 12:06
Toluene-d8	119	70-130		04/28/2015 12:06
4-BFB	113	70-130		04/28/2015 12:06

Analyst(s): AK



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC21	103879

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	10	5	04/21/2015 22:40
Acenaphthylene	ND	10	5	04/21/2015 22:40
Acetochlor	ND	10	5	04/21/2015 22:40
Anthracene	ND	10	5	04/21/2015 22:40
Benzidine	ND	52	5	04/21/2015 22:40
Benzo (a) anthracene	ND	10	5	04/21/2015 22:40
Benzo (b) fluoranthene	ND	10	5	04/21/2015 22:40
Benzo (k) fluoranthene	ND	10	5	04/21/2015 22:40
Benzo (g,h,i) perylene	ND	10	5	04/21/2015 22:40
Benzo (a) pyrene	ND	10	5	04/21/2015 22:40
Benzyl Alcohol	ND	52	5	04/21/2015 22:40
1,1-Biphenyl	ND	10	5	04/21/2015 22:40
Bis (2-chloroethoxy) Methane	ND	10	5	04/21/2015 22:40
Bis (2-chloroethyl) Ether	ND	10	5	04/21/2015 22:40
Bis (2-chloroisopropyl) Ether	ND	10	5	04/21/2015 22:40
Bis (2-ethylhexyl) Adipate	ND	10	5	04/21/2015 22:40
Bis (2-ethylhexyl) Phthalate	ND	10	5	04/21/2015 22:40
4-Bromophenyl Phenyl Ether	ND	10	5	04/21/2015 22:40
Butylbenzyl Phthalate	ND	10	5	04/21/2015 22:40
4-Chloroaniline	ND	20	5	04/21/2015 22:40
4-Chloro-3-methylphenol	ND	10	5	04/21/2015 22:40
2-Chloronaphthalene	ND	10	5	04/21/2015 22:40
2-Chlorophenol	ND	10	5	04/21/2015 22:40
4-Chlorophenyl Phenyl Ether	ND	10	5	04/21/2015 22:40
Chrysene	ND	10	5	04/21/2015 22:40
Dibenzo (a,h) anthracene	ND	10	5	04/21/2015 22:40
Dibenzofuran	ND	10	5	04/21/2015 22:40
Di-n-butyl Phthalate	ND	10	5	04/21/2015 22:40
1,2-Dichlorobenzene	ND	10	5	04/21/2015 22:40
1,3-Dichlorobenzene	ND	10	5	04/21/2015 22:40
1,4-Dichlorobenzene	ND	10	5	04/21/2015 22:40
3,3-Dichlorobenzidine	ND	20	5	04/21/2015 22:40
2,4-Dichlorophenol	ND	10	5	04/21/2015 22:40
Diethyl Phthalate	ND	10	5	04/21/2015 22:40
2,4-Dimethylphenol	ND	10	5	04/21/2015 22:40
Dimethyl Phthalate	ND	10	5	04/21/2015 22:40
4,6-Dinitro-2-methylphenol	ND	52	5	04/21/2015 22:40
2,4-Dinitrophenol	ND	250	5	04/21/2015 22:40

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC21	103879
Analytes	Result		RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND		10	5	04/21/2015 22:40
2,6-Dinitrotoluene	ND		10	5	04/21/2015 22:40
Di-n-octyl Phthalate	ND		20	5	04/21/2015 22:40
1,2-Diphenylhydrazine	ND		10	5	04/21/2015 22:40
Fluoranthene	ND		10	5	04/21/2015 22:40
Fluorene	ND		10	5	04/21/2015 22:40
Hexachlorobenzene	ND		10	5	04/21/2015 22:40
Hexachlorobutadiene	ND		10	5	04/21/2015 22:40
Hexachlorocyclopentadiene	ND		52	5	04/21/2015 22:40
Hexachloroethane	ND		10	5	04/21/2015 22:40
Indeno (1,2,3-cd) pyrene	ND		10	5	04/21/2015 22:40
Isophorone	ND		10	5	04/21/2015 22:40
2-Methylnaphthalene	ND		10	5	04/21/2015 22:40
2-Methylphenol (o-Cresol)	ND		10	5	04/21/2015 22:40
3 & 4-Methylphenol (m,p-Cresol)	ND		10	5	04/21/2015 22:40
Naphthalene	ND		10	5	04/21/2015 22:40
2-Nitroaniline	ND		52	5	04/21/2015 22:40
3-Nitroaniline	ND		52	5	04/21/2015 22:40
4-Nitroaniline	ND		52	5	04/21/2015 22:40
Nitrobenzene	ND		10	5	04/21/2015 22:40
2-Nitrophenol	ND		52	5	04/21/2015 22:40
4-Nitrophenol	ND		52	5	04/21/2015 22:40
N-Nitrosodiphenylamine	ND		10	5	04/21/2015 22:40
N-Nitrosodi-n-propylamine	ND		10	5	04/21/2015 22:40
Pentachlorophenol	ND		52	5	04/21/2015 22:40
Phenanthrene	ND		10	5	04/21/2015 22:40
Phenol	ND		10	5	04/21/2015 22:40
Pyrene	ND		10	5	04/21/2015 22:40
1,2,4-Trichlorobenzene	ND		10	5	04/21/2015 22:40
2,4,5-Trichlorophenol	ND		10	5	04/21/2015 22:40
2,4,6-Trichlorophenol	ND		10	5	04/21/2015 22:40

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC21	103879

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	114	30-130		04/21/2015 22:40
Phenol-d5	75	30-130		04/21/2015 22:40
Nitrobenzene-d5	89	30-130		04/21/2015 22:40
2-Fluorobiphenyl	86	30-130		04/21/2015 22:40
2,4,6-Tribromophenol	62	16-130		04/21/2015 22:40
4-Terphenyl-d14	83	30-130		04/21/2015 22:40

Analyst(s): HD

Analytical Comments: a4,a3



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC21	103879

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/22/2015 17:27
Acenaphthylene	ND	0.25	1	04/22/2015 17:27
Acetochlor	ND	0.25	1	04/22/2015 17:27
Anthracene	ND	0.25	1	04/22/2015 17:27
Benzidine	ND	1.3	1	04/22/2015 17:27
Benzo (a) anthracene	ND	0.25	1	04/22/2015 17:27
Benzo (b) fluoranthene	ND	0.25	1	04/22/2015 17:27
Benzo (k) fluoranthene	ND	0.25	1	04/22/2015 17:27
Benzo (g,h,i) perylene	ND	0.25	1	04/22/2015 17:27
Benzo (a) pyrene	ND	0.25	1	04/22/2015 17:27
Benzyl Alcohol	ND	1.3	1	04/22/2015 17:27
1,1-Biphenyl	ND	0.25	1	04/22/2015 17:27
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/22/2015 17:27
Bis (2-chloroethyl) Ether	ND	0.25	1	04/22/2015 17:27
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/22/2015 17:27
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/22/2015 17:27
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/22/2015 17:27
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/22/2015 17:27
Butylbenzyl Phthalate	ND	0.25	1	04/22/2015 17:27
4-Chloroaniline	ND	0.50	1	04/22/2015 17:27
4-Chloro-3-methylphenol	ND	0.25	1	04/22/2015 17:27
2-Chloronaphthalene	ND	0.25	1	04/22/2015 17:27
2-Chlorophenol	ND	0.25	1	04/22/2015 17:27
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/22/2015 17:27
Chrysene	ND	0.25	1	04/22/2015 17:27
Dibenzo (a,h) anthracene	ND	0.25	1	04/22/2015 17:27
Dibenzofuran	ND	0.25	1	04/22/2015 17:27
Di-n-butyl Phthalate	ND	0.25	1	04/22/2015 17:27
1,2-Dichlorobenzene	ND	0.25	1	04/22/2015 17:27
1,3-Dichlorobenzene	ND	0.25	1	04/22/2015 17:27
1,4-Dichlorobenzene	ND	0.25	1	04/22/2015 17:27
3,3-Dichlorobenzidine	ND	0.50	1	04/22/2015 17:27
2,4-Dichlorophenol	ND	0.25	1	04/22/2015 17:27
Diethyl Phthalate	ND	0.25	1	04/22/2015 17:27
2,4-Dimethylphenol	ND	0.25	1	04/22/2015 17:27
Dimethyl Phthalate	ND	0.25	1	04/22/2015 17:27
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/22/2015 17:27
2,4-Dinitrophenol	ND	6.3	1	04/22/2015 17:27

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC21	103879

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	04/22/2015 17:27
2,6-Dinitrotoluene	ND	0.25	1	04/22/2015 17:27
Di-n-octyl Phthalate	ND	0.50	1	04/22/2015 17:27
1,2-Diphenylhydrazine	ND	0.25	1	04/22/2015 17:27
Fluoranthene	ND	0.25	1	04/22/2015 17:27
Fluorene	ND	0.25	1	04/22/2015 17:27
Hexachlorobenzene	ND	0.25	1	04/22/2015 17:27
Hexachlorobutadiene	ND	0.25	1	04/22/2015 17:27
Hexachlorocyclopentadiene	ND	1.3	1	04/22/2015 17:27
Hexachloroethane	ND	0.25	1	04/22/2015 17:27
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/22/2015 17:27
Isophorone	ND	0.25	1	04/22/2015 17:27
2-Methylnaphthalene	ND	0.25	1	04/22/2015 17:27
2-Methylphenol (o-Cresol)	ND	0.25	1	04/22/2015 17:27
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/22/2015 17:27
Naphthalene	ND	0.25	1	04/22/2015 17:27
2-Nitroaniline	ND	1.3	1	04/22/2015 17:27
3-Nitroaniline	ND	1.3	1	04/22/2015 17:27
4-Nitroaniline	ND	1.3	1	04/22/2015 17:27
Nitrobenzene	ND	0.25	1	04/22/2015 17:27
2-Nitrophenol	ND	1.3	1	04/22/2015 17:27
4-Nitrophenol	ND	1.3	1	04/22/2015 17:27
N-Nitrosodiphenylamine	ND	0.25	1	04/22/2015 17:27
N-Nitrosodi-n-propylamine	ND	0.25	1	04/22/2015 17:27
Pentachlorophenol	ND	1.3	1	04/22/2015 17:27
Phenanthrene	ND	0.25	1	04/22/2015 17:27
Phenol	ND	0.25	1	04/22/2015 17:27
Pyrene	ND	0.25	1	04/22/2015 17:27
1,2,4-Trichlorobenzene	ND	0.25	1	04/22/2015 17:27
2,4,5-Trichlorophenol	ND	0.25	1	04/22/2015 17:27
2,4,6-Trichlorophenol	ND	0.25	1	04/22/2015 17:27

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC21	103879

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	96	30-130		04/22/2015 17:27
Phenol-d5	87	30-130		04/22/2015 17:27
Nitrobenzene-d5	85	30-130		04/22/2015 17:27
2-Fluorobiphenyl	78	30-130		04/22/2015 17:27
2,4,6-Tribromophenol	70	16-130		04/22/2015 17:27
4-Terphenyl-d14	90	30-130		04/22/2015 17:27

Analyst(s): HD



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	ICP-MS2	103916

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/22/2015 20:03
Arsenic	7.2	0.50	1	04/22/2015 20:03
Barium	140	5.0	1	04/22/2015 20:03
Beryllium	0.67	0.50	1	04/22/2015 20:03
Cadmium	0.26	0.25	1	04/22/2015 20:03
Chromium	56	0.50	1	04/22/2015 20:03
Cobalt	9.8	0.50	1	04/22/2015 20:03
Copper	26	0.50	1	04/22/2015 20:03
Lead	10	0.50	1	04/22/2015 20:03
Mercury	0.094	0.050	1	04/22/2015 20:03
Molybdenum	0.92	0.50	1	04/22/2015 20:03
Nickel	49	0.50	1	04/22/2015 20:03
Selenium	ND	0.50	1	04/22/2015 20:03
Silver	ND	0.50	1	04/22/2015 20:03
Thallium	ND	0.50	1	04/22/2015 20:03
Vanadium	52	0.50	1	04/22/2015 20:03
Zinc	71	5.0	1	04/22/2015 20:03
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	122	70-130		04/22/2015 20:03

Analyst(s): DB



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	ICP-MS2	103916

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/22/2015 20:09
Arsenic	15	0.50	1	04/22/2015 20:09
Barium	140	5.0	1	04/22/2015 20:09
Beryllium	0.71	0.50	1	04/22/2015 20:09
Cadmium	0.41	0.25	1	04/22/2015 20:09
Chromium	65	0.50	1	04/22/2015 20:09
Cobalt	9.5	0.50	1	04/22/2015 20:09
Copper	26	0.50	1	04/22/2015 20:09
Lead	10	0.50	1	04/22/2015 20:09
Mercury	0.088	0.050	1	04/22/2015 20:09
Molybdenum	2.2	0.50	1	04/22/2015 20:09
Nickel	61	0.50	1	04/22/2015 20:09
Selenium	ND	0.50	1	04/22/2015 20:09
Silver	ND	0.50	1	04/22/2015 20:09
Thallium	ND	0.50	1	04/22/2015 20:09
Vanadium	53	0.50	1	04/22/2015 20:09
Zinc	74	5.0	1	04/22/2015 20:09
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	127	70-130		04/22/2015 20:09

Analyst(s): DB



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC7	103880

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/22/2015 23:32
MTBE	---	0.050	1	04/22/2015 23:32
Benzene	---	0.0050	1	04/22/2015 23:32
Toluene	---	0.0050	1	04/22/2015 23:32
Ethylbenzene	---	0.0050	1	04/22/2015 23:32
Xylenes	---	0.0050	1	04/22/2015 23:32

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	109	70-130	04/22/2015 23:32

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC7	103880

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/23/2015 00:02
MTBE	---	0.050	1	04/23/2015 00:02
Benzene	---	0.0050	1	04/23/2015 00:02
Toluene	---	0.0050	1	04/23/2015 00:02
Ethylbenzene	---	0.0050	1	04/23/2015 00:02
Xylenes	---	0.0050	1	04/23/2015 00:02

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	108	70-130	04/23/2015 00:02

Analyst(s): IA



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/21/15

WorkOrder: 1504840
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	GC6B	103904

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	20	20	20	04/25/2015 03:37
TPH-Motor Oil (C18-C36)	280	100	20	04/25/2015 03:37
TPH-Hydraulic Oil (C18-C36)	280	100	20	04/25/2015 03:37

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	92	70-130	04/25/2015 03:37

Analyst(s): TK Analytical Comments: e7,e2

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	GC6A	103904

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.1	1.0	1	04/28/2015 03:37
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/28/2015 03:37
TPH-Hydraulic Oil (C18-C36)	ND	5.0	1	04/28/2015 03:37

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	74	70-130	04/28/2015 03:37

Analyst(s): TK Analytical Comments: e2



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/21/15
Instrument: GC10, GC16
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103881
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-103881
 1504815-003AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0501	0.0050	0.050	-	100	53-116
Benzene	ND	0.0626	0.0050	0.050	-	125	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.258	0.050	0.20	-	129	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0535	0.0050	0.050	-	107	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0510	0.0040	0.050	-	102	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0570	0.0040	0.050	-	114	58-135
1,1-Dichloroethene	ND	0.0575	0.0050	0.050	-	115	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/21/15
Instrument: GC10, GC16
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103881
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-103881
 1504815-003AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0583	0.0050	0.050	-	117	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0538	0.0050	0.050	-	108	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0541	0.0050	0.050	-	108	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0575	0.0050	0.050	-	115	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0552	0.0050	0.050	-	110	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	0.114	0.120		0.12	91	96	72-126
Toluene-d8	0.129	0.122		0.12	103	98	81-115
4-BFB	0.0147	0.0114		0.012	117	91	55-127

(Cont.)



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/21/15
Instrument: GC10, GC16
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103881
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-103881
 1504815-003AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0387	0.0397	0.050	ND	77	79	70-130	2.54	20
Benzene	0.0439	0.0440	0.050	ND	88	88	70-130	0	20
t-Butyl alcohol (TBA)	0.132	0.137	0.20	ND	66,F1	69,F1	70-130	3.67	20
Chlorobenzene	0.0409	0.0410	0.050	ND	82	82	70-130	0	20
1,2-Dibromoethane (EDB)	0.0394	0.0405	0.050	ND	79	81	70-130	2.75	20
1,2-Dichloroethane (1,2-DCA)	0.0410	0.0419	0.050	ND	82	84	70-130	2.35	20
1,1-Dichloroethene	0.0430	0.0433	0.050	ND	86	87	70-130	0.874	20
Diisopropyl ether (DIPE)	0.0407	0.0418	0.050	ND	81	84	70-130	2.69	20
Ethyl tert-butyl ether (ETBE)	0.0404	0.0418	0.050	ND	81	83	70-130	3.35	20
Methyl-t-butyl ether (MTBE)	0.0396	0.0407	0.050	ND	79	81	70-130	2.70	20
Toluene	0.0422	0.0420	0.050	ND	84	84	70-130	0	20
Trichloroethene	0.0440	0.0442	0.050	ND	88	88	70-130	0	20
Surrogate Recovery									
Dibromofluoromethane	0.119	0.124	0.12		95	99	70-130	4.31	20
Toluene-d8	0.120	0.120	0.12		96	96	70-130	0	20
4-BFB	0.0132	0.0133	0.012		106	106	70-130	0	20

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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/21/15
Date Analyzed: 4/24/15
Instrument: GC23
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103903
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS-103903
 1504830-001AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0559	0.0010	0.050	-	112	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0549	0.0010	0.050	-	110	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0453	0.0010	0.050	-	91	70-130
Dieldrin	ND	0.0554	0.0010	0.050	-	111	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0620	0.0010	0.050	-	124	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0549	0.0010	0.050	-	110	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
PCBs, total	ND	-	0.050	-	-	-	-

Surrogate Recovery

Decachlorobiphenyl	0.0479	0.0497		0.050	96	99	70-130
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/21/15
Date Analyzed: 4/24/15
Instrument: GC23
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103903
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS-103903
 1504830-001AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	0.0572	0.0562	0.050	ND	114	112	70-130	1.65	30
g-BHC	0.0554	0.0551	0.050	ND	111	110	70-130	0.403	30
p,p-DDT	0.0570	0.0550	0.050	0.009189	100	96	70-130	3.48	30
Dieldrin	0.0745	0.0717	0.050	0.003238	142,F1	137,F1	70-130	3.83	30
Endrin	0.0677	0.0640	0.050	ND	135,F1	128	70-130	5.63	30
Heptachlor	0.0568	0.0555	0.050	ND	113	110	70-130	2.36	30
Surrogate Recovery									
Decachlorobiphenyl	0.0454	0.0455	0.050		91	91	70-130	0	30



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/20/15
Instrument: GC21
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103879
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-103879
 1504813-002AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	4.78	0.25	5	-	96	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	4.74	0.25	5	-	95	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.76	0.25	5	-	95	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	4.38	0.25	5	-	88	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.93	0.25	5	-	99	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/20/15
Instrument: GC21
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103879
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-103879
 1504813-002AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	4.10	1.3	5	-	82	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	4.30	0.25	5	-	86	30-130
Pentachlorophenol	ND	3.14	1.3	5	-	63	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	4.35	0.25	5	-	87	30-130
Pyrene	ND	5.09	0.25	5	-	102	30-130
1,2,4-Trichlorobenzene	ND	4.77	0.25	5	-	95	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

Surrogate Recovery

2-Fluorophenol	3.62	4.58		5	72	92	30-130
Phenol-d5	3.51	4.31		5	70	86	30-130
Nitrobenzene-d5	3.45	4.33		5	69	87	30-130
2-Fluorobiphenyl	3.14	4.07		5	63	81	30-130
2,4,6-Tribromophenol	2.12	3.55		5	43	71	16-130
4-Terphenyl-d14	3.77	4.56		5	75	91	30-130

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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/20/15
Instrument: GC21
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103879
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-103879
 1504813-002AMS/MSD

QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	NR	NR		ND<4	NR	NR	-	NR	
4-Chloro-3-methylphenol	NR	NR		ND<4	NR	NR	-	NR	
2-Chlorophenol	NR	NR		ND<4	NR	NR	-	NR	
1,4-Dichlorobenzene	NR	NR		ND<4	NR	NR	-	NR	
2,4-Dinitrotoluene	NR	NR		ND<4	NR	NR	-	NR	
4-Nitrophenol	NR	NR		ND<21	NR	NR	-	NR	
N-Nitrosodi-n-propylamine	NR	NR		ND<4	NR	NR	-	NR	
Pentachlorophenol	NR	NR		ND<21	NR	NR	-	NR	
Phenol	NR	NR		ND<4	NR	NR	-	NR	
Pyrene	NR	NR		ND<4	NR	NR	-	NR	
1,2,4-Trichlorobenzene	NR	NR		ND<4	NR	NR	-	NR	
Surrogate Recovery									
2-Fluorophenol	NR	NR			NR	NR	-	NR	
Phenol-d5	NR	NR			NR	NR	-	NR	
Nitrobenzene-d5	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	
2,4,6-Tribromophenol	NR	NR			NR	NR	-	NR	
4-Terphenyl-d14	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/21/15
Date Analyzed: 4/22/15
Instrument: ICP-MS2
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103916
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-103916
 1504831-001AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	48.2	0.50	50	-	96	75-125
Arsenic	ND	48.2	0.50	50	-	96	75-125
Barium	ND	457	5.0	500	-	91	75-125
Beryllium	ND	48.8	0.50	50	-	98	75-125
Cadmium	ND	47.5	0.25	50	-	95	75-125
Chromium	ND	47.8	0.50	50	-	96	75-125
Cobalt	ND	46.7	0.50	50	-	93	75-125
Copper	ND	48.6	0.50	50	-	97	75-125
Lead	ND	48.9	0.50	50	-	98	75-125
Mercury	ND	1.09	0.050	1.25	-	88	75-125
Molybdenum	ND	46.7	0.50	50	-	93	75-125
Nickel	ND	48.1	0.50	50	-	96	75-125
Selenium	ND	48.8	0.50	50	-	98	75-125
Silver	ND	48.7	0.50	50	-	97	75-125
Thallium	ND	48.3	0.50	50	-	97	75-125
Vanadium	ND	48.2	0.50	50	-	96	75-125
Zinc	ND	498	5.0	500	-	100	75-125
Surrogate Recovery							
Tb 350.917	566	480		500	113	96	70-130



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/21/15
Date Analyzed: 4/22/15
Instrument: ICP-MS2
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103916
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-103916
 1504831-001AMS/MSD

QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	56.0	54.5	50	ND	111	108	75-125	2.68	20
Arsenic	54.8	53.9	50	4.443	101	99	75-125	1.77	20
Barium	780	817	500	441.6	68,F1	75	75-125	4.64	20
Beryllium	51.9	50.5	50	0.8156	102	99	75-125	2.79	20
Cadmium	54.5	53.9	50	ND	109	108	75-125	1.09	20
Chromium	75.4	70.5	50	17.61	116	106	75-125	6.65	20
Cobalt	60.6	62.6	50	11.73	98	102	75-125	3.28	20
Copper	67.9	63.6	50	14.94	106	97	75-125	6.45	20
Lead	64.9	60.8	50	5.657	119	110	75-125	6.52	20
Mercury	NR	NR	1.25	4.229	NR	NR	75-125	NR	20
Molybdenum	55.3	53.3	50	0.5511	110	105	75-125	3.78	20
Nickel	80.2	76.7	50	23.03	114	107	75-125	4.51	20
Selenium	50.6	49.1	50	0.5882	100	97	75-125	3.05	20
Silver	54.4	53.8	50	ND	109	107	75-125	1.15	20
Thallium	55.1	54.3	50	ND	110	108	75-125	1.52	20
Vanadium	96.3	89.0	50	31.47	130,F1	115	75-125	7.83	20
Zinc	574	550	500	46.69	105	101	75-125	4.29	20
Surrogate Recovery									
Tb 350.917	564	551	500		113	110	70-130	2.31	20



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/20/15
Date Analyzed: 4/21/15
Instrument: GC7
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103880
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-103880
 1504815-003AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.664	0.40	0.60	-	111	70-130
MTBE	ND	0.104	0.050	0.10	-	104	70-130
Benzene	ND	0.123	0.0050	0.10	-	123	70-130
Toluene	ND	0.121	0.0050	0.10	-	121	70-130
Ethylbenzene	ND	0.124	0.0050	0.10	-	124	70-130
Xylenes	ND	0.382	0.0050	0.30	-	127	70-130

Surrogate Recovery

2-Fluorotoluene	0.114	0.121		0.10	114	121	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.676	0.604	0.60	ND	113	101	70-130	11.3	20
MTBE	0.0731	0.0785	0.10	ND	73	79	70-130	7.19	20
Benzene	0.0821	0.0868	0.10	ND	82	87	70-130	5.52	20
Toluene	0.0852	0.0880	0.10	ND	85	88	70-130	3.22	20
Ethylbenzene	0.0846	0.0877	0.10	ND	85	88	70-130	3.63	20
Xylenes	0.251	0.262	0.30	ND	84	87	70-130	4.09	20

Surrogate Recovery

2-Fluorotoluene	0.0755	0.0767	0.10		75	77	70-130	1.54	20
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/21/15
Date Analyzed: 4/21/15
Instrument: GC11A
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 103904
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-103904
 1504830-001AMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	37.5	1.0	40	-	94	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-

Surrogate Recovery

C9	23.9	24.0		25	96	96	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	37.9	37.1	40	ND	95	93	70-130	2.11	30

Surrogate Recovery

C9	24.2	24.2	25		97	97	70-130	0	30
----	------	------	----	--	----	----	--------	---	----



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1504840

ClientCode: SESB

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Richard Makdisi
 Stellar Environmental Solutions
 2198 Sixth St. #201
 Berkeley, CA 94710
 (510) 644-3123 FAX: (510) 644-3859

Email: rmakdisi@stellar-environmental.com;sbitm
 cc/3rd Party:
 PO:
 ProjectNo: #2015-28; Soil Profile

Bill to:
 Accounts Payable
 Stellar Enviornmental Solutions
 2198 Sixth St. #201
 Berkeley, CA 94710
 lwheeler@stellar-environmental.com

Requested TAT: 5 days

Date Received: 04/21/2015
Date Printed: 04/21/2015

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1504840-001	C1	Soil	4/20/2015 11:30	<input type="checkbox"/>	A	A	A	A	A	A						
1504840-002	C2	Soil	4/20/2015 12:30	<input type="checkbox"/>	A	A	A	A	A	A						

Test Legend:

1	8081PCB_S	2	8260B_S	3	8270_S	4	CAM17MS_S	5	G-MBTEX_S
6	TPH_S	7		8		9		10	
11		12							

The following SamplIDs: 001A, 002A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: STELLAR ENVIRONMENTAL SOLUTIONS

QC Level: LEVEL 2

Work Order: 1504840

Project: #2015-28; Soil Profile

Client Contact: Richard Makdisi

Date Received: 4/21/2015

Comments:

Contact's Email: rmakdisi@stellar-
 environmental.com;sbittman@stellar-

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1504840-001A	C1	Soil	Multi-Range TPH(g,d,mo)	1	16OZ GJ	<input type="checkbox"/>	4/20/2015 11:30	5 days			<input type="checkbox"/>		
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1504840-002A	C2	Soil	Multi-Range TPH(g,d,mo)	1	16OZ GJ	<input type="checkbox"/>	4/20/2015 12:30	5 days			<input type="checkbox"/>		
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
 - MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1504840

Chain of Custody Record

Lab job no. _____

Laboratory McC Campbell Analytical Inc
Address 1534 Willow Pass Road
Pittsburg, CA 94565-1701
877-252-9262

Method of Shipment Hand Delivery / courier
Shipment No. _____
Airbill No. _____

Date _____

Page 1 of 1

Project Owner BayWest Dev
Site Address 7544 Dublin Blvd, Dublin CA

Cooler No. _____
Project Manager Richard Makdisi
Telephone No. (510) 644-3123

Project Name Soil Profile
Project Number 2015-28

Fax No. (510) 644-3859
Samplers: (Signature) [Signature]

Filtered	No. of Containers	Analysis Required										Remarks
		TEH mg/kg	TVH mg/kg	8260	VOCs	OC Pest 8270	PCBs 8081	PCBs 8082	T.T.H.e 22 metals			
	1	X	X	X	X	X	X	X				
	1	X	X	X	X	X	X	X				

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation	
						Cooler	Chemical
C1	0-1'	4/20/15	1130	Soil	16oz glass	yes	no
C2	0-1'	4/21/15	1230	Soil	16oz glass	yes	no

Relinquished by: [Signature]
Signature _____
Printed Henry Pietropaoli
Company Stellar Environmental

Date 4/21/15
Time 1320
Received by: [Signature]
Signature _____
Printed CUMMINGS
Company MAI

Date 4-21-15
Time 1450
Relinquished by: [Signature]
Signature _____
Printed CUMMINGS
Company MAI

Date 4/21/15
Time 1450
Received by: [Signature]
Signature _____
Printed Maria Venegas
Company MAI

Turnaround Time: Samples on ice
Comments: Standard TAT
save soil for possible added tests

Relinquished by: _____
Signature _____
Date _____
Time _____
Printed 3.2
ICE/°
GOOD CONDITION
COMPANY SPACE ABSENT
DECLORINATED IN LAB
PRESERVED IN _____
APPROPRIATE CONTAINERS
PRESERVED IN _____
Company _____

2000-00-01



2198 Sixth Street #201, Berkeley, CA 94710
PRESERVATION VOAS O&G METALS OTHER



Sample Receipt Checklist

Client Name: **Stellar Environmental Solutions** Date and Time Received: **4/21/2015 3:07:18 PM**
 Project Name: **#2015-28; Soil Profile** LogIn Reviewed by: **Maria Venegas**
 WorkOrder No: **1504840** Matrix: Soil Carrier: Bernie Cummins (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Sample/Temp Blank temperature Temp: 3.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1504840 A

Report Created for: Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710

Project Contact: Richard Makdisi
Project P.O.:
Project Name: #2015-28; Soil Profile

Project Received: 04/21/2015

Analytical Report reviewed & approved for release on 05/04/2015 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
WorkOrder: 1504840

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	sample diluted due to high organic content.
a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
----	--



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profile
Date Received: 4/21/15 15:07
Date Prepared: 4/28/15

WorkOrder: 1504840
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

STLC Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C1	1504840-001A	Soil	04/20/2015 11:30	ICP-JY	104205

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.43	0.050	1	05/01/2015 18:33

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C2	1504840-002A	Soil	04/20/2015 12:30	ICP-JY	104205

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.11	0.050	1	05/01/2015 14:55

Analyst(s): DB



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 4/28/15
Date Analyzed: 5/1/15
Instrument: ICP-JY
Matrix: Soil
Project: #2015-28; Soil Profile

WorkOrder: 1504840
BatchID: 104205
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L
Sample ID: MB/LCS-104205
 1504840-002AMS/MSD

QC Summary Report for Metals (STLC)

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Chromium	ND	0.990	0.050	1	-	99	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Chromium	1.09	1.09	1	0.1119	98	98	70-130	0	30



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1504840 **A** ClientCode: SESB

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Richard Makdisi
 Stellar Environmental Solutions
 2198 Sixth St. #201
 Berkeley, CA 94710
 (510) 644-3123 FAX: (510) 644-3859

Email: rmakdisi@stellar-environmental.com;sbittm
 cc/3rd Party:
PO:
 ProjectNo: #2015-28; Soil Profile

Bill to:
 Accounts Payable
 Stellar Enviornmental Solutions
 2198 Sixth St. #201
 Berkeley, CA 94710
 lwheeler@stellar-environmental.com

Requested TAT: **5 days**
Date Received: **04/21/2015**
Date Add-On: **04/28/2015**
Date Printed: **04/28/2015**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1504840-001	C1	Soil	4/20/2015 11:30	<input type="checkbox"/>	A												
1504840-002	C2	Soil	4/20/2015 12:30	<input type="checkbox"/>	A												

Test Legend:

1	STLC_METALS_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Add-On Prepared By: Jena Alfaro

Comments: STLC Cr added 4/28/15 5D TAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: STELLAR ENVIRONMENTAL SOLUTIONS

QC Level: LEVEL 2

Work Order: 1504840

Project: #2015-28; Soil Profile

Client Contact: Richard Makdisi

Date Received: 4/21/2015

Comments: STLC Cr added 4/28/15 5D TAT

Contact's Email: rmakdisi@stellar-
 environmental.com;sbittman@stellar-

Date Add-On: 4/28/2015

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1504840-001A	C1	Soil	SW6010B (Metals) (STLC) <Chromium>	1	16OZ GJ	4/20/2015 11:30	5 days*		<input type="checkbox"/>	
1504840-002A	C2	Soil	SW6010B (Metals) (STLC) <Chromium>	1	16OZ GJ	4/20/2015 12:30	5 days*		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1504840

Chain of Custody Record

Laboratory McC Campbell Analytical Inc
 Address 1534 Willow Pass Road
Pittsburg, CA 94565-1701
877-252-9262

Method of Shipment Hand Delivery / courier
 Shipment No. _____
 Airbill No. _____

Lab job no. _____
 Date _____
 Page 1 of 1

Project Owner BayWest Dev
 Site Address 7544 Dublin Blvd, Dublin CA

Cooler No. _____
 Project Manager Richard Makdisi

Project Name Soil Profile
 Project Number 2015-28

Telephone No. (510) 644-3123
 Fax No. (510) 644-3859
 Samplers: (Signature) [Signature]

Filtered	No. of Containers	Analysis Required										Remarks
		TEH	TVH	8260	SVOCs	OC Pest	PCBs	THH	22 metals	STC	CC	
	1	X	X	X	X	X	X	X	X	X	X	
	1	X	X	X	X	X	X	X	X	X	X	

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation	
						Cooler	Chemical
C1	0-1'	4/20/15	1130	Soil	16 oz glass	yes	no
C2	0-1'	4/21/15	1230	Soil	16 oz glass	yes	no

Relinquished by: [Signature]
 Signature _____
 Printed Henry Pietropaoli
 Company Stellar Environmental

Date 4/21/15
 Time 1320
 Received by: [Signature]
 Signature _____
 Printed CUMMINS
 Company MAI

Date 4-21-15
 Time 1450
 Relinquished by: [Signature]
 Signature _____
 Printed CUMMINS
 Company MAI

Date 4/21/15
 Time 1450
 Received by: [Signature]
 Signature _____
 Printed Maria Venegas
 Company MAI

Turnaround Time: Samples on ice
 Comments: Standard TAT
save soil for possible added tests

Relinquished by: _____
 Signature _____
 Printed 3.2
 ICE/° 3.2
 GOOD CONDITION _____
 COMPANY SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 PRESERVED IN _____
 Company _____



2198 SIXTH STREET, SUITE 201-BERKELEY, CA 94710
TEL: (510)644-3123 · FAX: (510)644-3859

GEOSCIENCE & ENGINEERING CONSULTING

June 17, 2015

Mr. Pete Beritzhoff
Bay West Development
2 Henry Adams Street
Suite #450
San Francisco, CA 94103

Subject: Results of Soil Profiling for Health and Safety Evaluation and Off-Site Disposal in Support of Redevelopment Activity at 7544 Dublin Blvd, Dublin, California.

INTRODUCTION

Dear Mr. Beritzhoff

This Stellar Environmental Solutions, Inc. (Stellar Environmental) provides Bay West Development with the findings of the soil profiling of approximately 6,600 Cubic Yards (CY) of soil to be off-hauled as non-hazardous landfill disposal. The six additional samples collected recently augments the original two composite samples collected last month when the extent of net export was considered to be substantially smaller. The preliminary soil samples was analyzed for a wide range of contaminants not expected by site history but required by truckers considering off haul as non-classified (reuse) soil.

Although there were no contaminants of concern (COCs) associate with the initial two composite samples the decision was made to pursue disposal to a classified landfill in order to expedite the soil transfer. The six additional composite sample sets were submitted for analyses based on the historical use and informed by the result from the previous broad analytical suite completed, as well as the Republic Services density of sampling per analytical suite type.

The development area required demolition of existing parking areas and buildings (completed) including a former fuel tank area. According to the grading plans provided by the project geotechnical engineer (CBG) the project area is approximately 337,500 square feet (sf) which includes 42,330 sf of existing building areas that were demolished. The existing buildings, concrete and asphalt had been demolished and removed from the site prior to the time of the profile sampling discussed in this report.

The planned development involves no excavation as such but with an approximately 6 -inch deep grading/grubbing which will produce an estimated 6,000 CY for net export. The geotechnical engineer for the project estimates the next export is likely on the order of half that due to “an average difference of only 3” over the site with the new topographic survey, so the export volume may be lower.

Because the shallow upper foot of soil to be grubbed and graded likely contains some debris (asphalt, concrete, roots, etc.) making it less undesirable for beneficial re-use, the soil material is assumed to be required to be disposed of to a Class II landfill facility.

The principal objective of this sampling work has been conducted to characterize the soil for both offsite disposal options and to identify and evaluate any potential site worker exposure issues that may be present during upcoming construction/excavation activities.

Figure 1 is a site location map. The boring locations are shown on Figure 2.

PRE-FIELD WORK ELEMENTS

This task encompasses the pre-field work elements of the project. Pre-fieldwork subtasks included:

- Schedule the analytical laboratory subcontractor; and
- Preparation of project Health and Safety Plan.

The specific project objectives for this project included:

- Collect eight 4-point composite samples sets from 0- 8 inches below ground surface (bgs);
- Evaluate the data against regulatory consideration for exposure and offsite disposal;
- Identify potential site worker exposure that may be present during upcoming construction/excavation activities; and
- Prepare this letter documentation report of the analytical results of the soil sampling, with conclusions and recommendations based on the findings.

SOIL SAMPLING PROTOCOL

Based upon a total estimated export volume of 6,000 CYs, a total of eight 4-point composite samples were required to adequately profile the soil for offsite disposal to a California Class II landfill facility and make an assessment of the potential health risk concerns to site construction workers. This sampling provides sufficient density and representative coverage of the current soil conditions to characterize the site. The number of composite samples and analytical methods used to profile this volume of soil is based upon the acceptance criteria used by Republic Services for disposal to their

Ox Mountain Landfill (Half Moon Bay), Newby Island Landfill (Milpitas), Forward Landfill (Manteca) and Keller Canyon Landfill (Pittsburgh) facilities.

Two composite soil samples (C1 and C2) were collected on April 20, 2015 and an additional six soil samples (C3 thru C8) were collected on June 3, 2015, by Henry Pietropaoli, P.G, of Stellar Environmental. The samples were collected using a stainless-steel shovel/trowel to dig an 8-inch deep pothole from which a representative section of soil was collected from the surface to 8 inches deep. The shovel was decontaminated between potholes with a clean water rinse. Following sampling, each pothole was backfilled with the removed soil. Four potholes were dug to collect soil from which each 4-point composite sample was made.

Compositing entailed removal of any larger obvious rocks and organic debris from the retained soil sections and homogenizing the mix in a clean plastic bag. The mix was then placed into a 16-ounce laboratory-supplied glass jar, labeled and transferred to a cooler chilled with ice for transport to the analytical laboratory.

Attachment A contains photo-documentation of the field activity. The locations of the sample collection points are shown on Figure 2.

ANALYTICAL METHODS

Laboratory Analyses

The analytical suite below is based on the general site history and typical regulated California landfill facility requirements. The number of recommended analyses by each analytical method used for profiling this soil volume is shown in parentheses after each analytical method listed.

The eight composite samples collected were analyzed by the following the analytical method:

- Total extractable hydrocarbons – diesel and motor oil and hydraulic oil ranges (TEH-d/mo) by EPA Method 8015M (six 4-point composite samples);
- Total volatile hydrocarbons – gasoline range (TVHg) and benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Methods 8020 and 8260 (eight 4-point composite samples);
- Volatile Organic Compounds (VOCs) by EPA Method 8260 (three 4-point composite samples);
- Semi Volatile Organic Compounds (SVOCs) by EPA Method 82708260 (three 4-point composite samples);
- Title 22 (17 listed metals) by EPA Method 6000 or 7000 series 8260 (three 4-point composite samples for all metals except 6 that are required for lead);

- Organochlorine Pesticides by EPA Method 80818260 (three 4-point composite samples);
- Polychlorinated Biphenyls (PCBs) by EPA Method 80828260 (three 4-point composite samples); and
- California Waste Extraction Test (CA-WET) analysis was required based on the result of the initial analyses as explained below for the metal chromium (Cr) on two samples (C1, C2)

Upon collection, the soil samples were labeled and immediately placed in an ice chest with ice at approximately 4°C and transported by courier under chain-of-custody to McCampbell Analytical Laboratory of Pittsburg, California, a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory.

Re-analysis by the CA Waste Extraction Test (CA-WET) of samples C1 and C2 for soluble Cr was required to make the hazardous vs. non-hazardous waste classification, pertaining to offsite disposal, because the total concentration exceeded the non-hazardous landfill screening criteria, (i.e., 10 times the Soluble Threshold Limit Concentrations [STLC]), or 50 mg/kg.

ANALYTICAL RESULTS OF SOIL SAMPLING

The following is a brief summary of the sample analytical results discussed in the context of comparative regulatory criteria published by the California Regional Water Quality Control Board (Water Board) commercial and construction/trench worker direct exposure Environmental Screening Limits (ESLs) and California landfill disposal guidelines. Table 1, attached at the end of this report summarized the analytical findings.

Total Petroleum Hydrocarbons as Gasoline, Diesel and Motor Oil-Hydraulic Oil

All of the samples contained low to trace concentrations of TEHd and TEHmo-ho except sample C2 that showed no detection above the laboratory reporting limit but all were below the most conservative Water Board commercial ESL exposure criteria and the direct exposure construction/trench worker ESL criteria. No TPH as gasoline was detected in any sample.

Volatile Organic Compounds (VOCs)

No VOCs, including those associated with petroleum hydrocarbons (benzene, toluene, ethylbenzene, xylenes and methyl-tert butyl ether (MTBE)) were detected at concentrations above the laboratory detection limits in any of the samples.

Title 22 List Metals

The soils showed slightly elevated (at 56 and 65 mg/kg) chromium (Cr) in samples C1 and C2 above the 50 mg/kg that required additional analysis by the CA Waste Extraction Test (WET) method to determine whether there were offsite landfill disposal constraints.

The sampling results showed concentrations of the metal arsenic (As) in all samples in which it was analyzed to be above the Water Board ESL criteria pertaining to risk of direct exposure to construction/trench workers.

CA Waste Extraction Test Results

The results the CA WET analysis of the two samples showed no Cr solute at or exceeding the 5 mg/L, hazardous waste threshold for soluble chromium. The results ranged between 0.11 and 0.43 mg/L chromium. Therefore the soil may be disposed to a regulated or non-hazardous, at a California landfill facility and/or any acceptable unregulated/unclassified receiving facility that would like to use the soil.

Polychlorinated Biphenols (PCBs)

No PCBs were detected at concentrations above the laboratory detection limits in any sample..

Semi-Volatile Organic Hydrocarbons (SVOCs)

Butylbenzyl phthalate (BBP) was the only SVOC detected above the laboratory detection limits. It was detected in sample C7 at 1.0 mg/kg, however there is no published Water Board Environmental Screening level (ESL) criteria to evaluate this compound.

Organochlorine Pesticides

Only a trace concentration of the pesticide dichlorodiphenyldichloroethylene (p,p-DDE) was detected in sample C1 at a concentration above the laboratory detection limits but is below the Water Board residential and direct exposure ESLs

LABORATORY QUALITY ASSURANCE

Laboratory internal quality control (QC) procedures included analysis of method blanks, control spikes, and surrogate spiked samples. The certified analytical laboratory reports and chain of custody records are contained in Attachment B.

REGULATORY CONSIDERATIONS

Stellar Environmental compared the soil data to the relevant Regional Water Quality Control Board (Water Board) Environmental Screening level (ESL) criteria for shallow soil in commercial /industrial areas where groundwater is considered a drinking water source (Water Board 2013). The analytical results of this soil evaluation showed no significant contaminant concentrations of regulatory concern pertaining to risks to human health and the environment, although the metal arsenic was, as is commonly the case, above its ESL. The relevant regulatory criteria are discussed here for information purposes. The landfill and regulatory considerations regarding detected contaminant of concern identified in soil that pertain to this site project include:

- Hazardous concentration thresholds defining the lead as hazardous (California Administrative Code Title 22) and offsite disposal and analytical considerations;
- Regional Water Quality Control Board (Water Board) guidance related to whether additional investigations should be considered ESLs; and
- Health and Safety consideration established by the Occupational Safety and Health Administration (OSHA).

Hazardous Concentration Thresholds: Soil sample analytical results are also compared to both total and soluble concentration-based criteria (Total Threshold Limit Concentrations [TTLCs] and Soluble Threshold Limit Concentrations [STLCs]). A soil that exceeds the TTLC is by definition a hazardous waste. STLC is used to define the “soluble fraction” that classifies a “waste” as California hazardous waste. This is only applied to waste soil that is being considered for offsite disposal to a landfill. Non-hazardous disposal facilities utilize a rule-of-thumb guideline to interpret total contaminant concentrations relative to the STLC hazardous waste criteria. Soils or waste with total contaminant concentrations in excess of 10 times the STLC have the potential to be classified as hazardous and are required to be analyzed by the California Waste Extraction Test (WET) and if the subsequent solute analysis results exceeds 5 mg/L, (the STLC for Cr), the soil or waste must then be disposed of to a California Class I hazardous waste facility. The Class I landfill would then also require an additional Toxic Characteristic Leaching Procedure (TCLP) test to determine whether stabilization of the waste will be required. In this case, chromium in both samples exceeded 10x the STLC, having a concentration greater than 50 mg/kg and therefore the WET was required, however both samples passed the WET and the soil can therefore be disposed to a non-hazardous landfill facility or even to an unclassified reuse facility if a recipient site can be found.

Water Board Considerations: The Water Board established the ESLs as conservative numerical guidance for evaluating the likelihood of environmental impact, specifically to groundwater. ESLs are screening-level criteria for soil and groundwater, designed to be generally protective of drinking water resources and aquatic environments. There are also ESLs for soil gas to address the potential

for indoor air intrusion from volatile organic compounds off-gassing from soil or groundwater but those are not relevant here. ESLs are not cleanup criteria (i.e., health-based numerical values or disposal-based values). The ESLs are conservative criteria used to evaluate if remediation and/or additional investigation are needed to determine potential impacts to human health or the environment, particularly groundwater, which the Water Board has a mandate to protect.

In the most preliminary stage (Tier 1, as utilized in this assessment), direct “look-up” tables provide numerical criteria, below which contamination is generally determined to have little or no significant risk to human receptors or the environment. The Tier 1 ESL values for soil are used depending on various site factors (land use: commercial/industrial versus residential), soil depth, lithology, and groundwater usage) and various risk pathways (direct exposure, groundwater protection, indoor air impacts, etc.). Exceedance of ESLs may warrant additional actions, such as more extensive sampling events, and/or remediation is warranted.

The naturally-occurring (background) concentrations of arsenic in soil throughout the San Francisco Bay Area commonly ranges from 10 mg/kg to 20 mg/kg, with 11 mg/kg arsenic currently designated by the Water Board as the California background concentration. For the construction/trench worker direct exposure scenario, only arsenic was detected above the ESL of 10 mg/kg in sample C2 (at 15 mg/kg). Exceeding the ESL for arsenic in sample C2 warrants dermal, and inhalation protection and dust mitigation measures during critical earthwork activities. Dermal exposure is easy to mitigate by standard practices of hand washing, etc. Inhalation exposure is only a risk when significant fugitive dust allows particulates into the breathing zone. Fugitive dust can be controlled by standard construction phase wetting practices.

OSHA and Construction Phase Exposure Considerations: There were no contaminants detected in the site soils at concentrations in excess of California Occupational Safety and Health Administration (Cal-OSHA) Title 8 published “threshold criterion” that dictate whether air (particulates, dusts, fumes, mists, vapors, and gases) monitoring is necessary to document adherence to site occupant and worker safety and health standards during redevelopment including construction, excavations and demolition activities.

When standard industry Best Management Practices (BMPs) are implemented (to minimize fugitive dust emissions), during development activities, the potential is very low for worker or bystander exposure to airborne dust, even during construction activity. Worker exposure limits for various contaminants by dermal, ingestion or inhalation are set by the U.S. OSHA, as well as the State OSHA (Cal-OSHA). The most stringent criterion for dust inhalation is the OSHA Permissible Exposure Level (PEL) = 8-hour time-weighted average per cubic meter air (mg/m³).

SUMMARY AND CONCLUSIONS

Stellar Environmental compared the analytical concentrations to the applicable Water Board ESL and criterion for applicable exposure risk scenario and for offsite landfill disposal and have arrived at the following conclusions:

- There were no petroleum hydrocarbons, volatile organic compounds, organochlorine pesticides, PCBs, or metals detected in excess of any regulatory screening levels pertaining to risks to human health or the environment.
- All of the analyzed compounds were documented at concentrations below hazardous levels for all compounds. All compounds were below ESLs except the metal arsenic (As) which exceeded the Water Board ESL as it pertains to construction/trench worker direct exposure risk. Exceedance of the direct exposure ESL for As in sample C2 may warrant a fugitive dust abatement plan with best management practices to mitigate the dermal and inhalation worker exposure scenario. This dust mitigation monitoring measures during earthwork activities could be established at the onset of the excavation phase to demonstrate that the BMP are mitigating the fugitive dust. Other than best management practices to minimize dust and related inhalation and dermal exposure, discussed below, no additional health and safety precautions should be required during the earth moving operations.
- Butylbenzyl phthalate was the only SVOC detected above the laboratory detection limits. It may be a toxin but is not at a level of regulatory concern to have regulatory exposure criteria or published ESLs by the Water Board.
- Two soil samples (C1 and C2) contained Cr concentrations above the 50 mg/kg that stipulates the samples be re-analyzed by the CA WET method to determine the waste classification. The WET solute was significantly less than the 5 mg/l STLC value and therefore the soil is classified as non-hazardous and may be disposed to a regulated Class II facility or any acceptable unregulated/unclassified receiving facility that would like to use the soil.
- Standard construction phase Best Management practices to mitigate fugitive dust should be employed during redevelopment activities.

RECOMMENDATIONS AND CONSIDERATIONS

The following are recommendations and/or considerations made with respect to the health and safety to both site occupants and construction workers during redevelopment activities include:

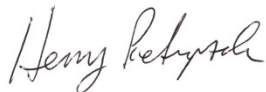
- Best Management Practices such as gloves and water spray for dust control should always be employed during earthwork to minimize the potential risk of exposure via dermal, ingestion or inhalation routes to the one identified contaminant of concern, arsenic (in soil) .

Mr. Pete Beritzhoff
Bay West Development
June 17, 2015
Page 9 of 9

- Work upwind of soils being excavated (or plan the work on a non-windy day) with active dust controls in effect (water spray suppression on-hand).
- During soil excavation and grading open areas, ground and soil stockpiles should be wetted or covered if fugitive dust emissions are observed.
- Soil stockpiles must be protected against the possibility of children or other non-construction persons contacting the soil and to prevent fugitive dust emissions. This can be achieved by secure site fencing and securing (adequately weighted down) stockpiled soil beneath heavy plastic (Visqueen) sheeting cover (6-mil nominal).
- Construction vehicle wheels leaving the site should be inspected and brushed/cleaned as necessary to ensure that soils are not incidentally tracked offsite.
- Particulate air sampling could be considered during earth moving activities as part of health and safety monitoring to document usage of proper dust control measures to mitigate potential exposure risk, but is not a requirement given the soil data findings.

Stellar Environmental appreciates the opportunity to provide Bay West Development with the requested technical services. If you have any questions, please feel free to call us at 510-644-3123.

Sincerely,



Henry Pietropaoli, P.G.
Senior Geologist/Project Manager



Richard Makdisi, P.G.
Principal Geochemist/President

FIGURES



2015-28-01



SITE LOCATION MAP

7544 Dublin Blvd
Dublin, California

By: MJC

APRIL 2015

Figure 1





LEGEND

- - - Subject property boundary
- 4-point composite sample collection points

0 130

SCALE: 1" = 130 FEET



LOCATION OF DISPOSAL PROFILE COMPOSITE SAMPLING POINTS

7544 Dublin Blvd
Dublin, California

By: MJC

JUNE 2015

Figure 2



2015-28-02

ANALYTICAL SUMMARY TABLE

**Table 1: Analytical Results of Four Point Composite Soil Profile Sampling
Redevelopment Activity at 7544 Dublin Blvd,
Dublin, California**

Sample ID	Depth (inches bg)	Title 22 Metals (mg/kg)			Chromium CA-WET (mg/L)	TPH motor oil - hydraulic oil (mg/kg)	TPH-diesel (mg/kg)	TPH-gas MBTEX (mg/kg)	VOCs (mg/kg)	Pesticides and PCBs (mg/kg)	SVOCs (mg/kg)
		As	Pb	Cr							
C1	0-12	7.2	10	<u>56</u>	0.43	280	1.1	All ND	All ND	* DDE = 0.017	All ND
C2	0-12	15	10	<u>65</u>	0.11	<5.0	<5.0	All ND	All ND	All ND	All ND
C3	0-8	7.5	11	<u>49</u>	NR	NA	NA	All ND	All ND	NA	NA
C4	0-8	NA	8.1	NA	NR	13	1.1	All ND	All ND	All ND***	NA
C5	0-8	NA	7.7	NA	NR	80	10	All ND	All ND	All ND	NA
C6	0-8	5.1	7.7	35	NR	17	2.3	All ND	All ND	NA	NA
C7	0-8	NA	27	NA	NR	11	1.6	All ND	All ND	All ND***	**BBP =1.0
C8	0-8	NA	ND	NA	NR	NA	NA	All ND	All ND	NA	NA
ESL (commercial/industrial designation)		1.6	320	1,000	NA	100,000	1,100	various	various	DDE = 7.0	various **
ESL (construction/trench worker exposure)		10	320	1,000	NA	28,000	900	various	various	DDE = 50	various

Notes:

TPH = total petroleum hydrocarbons; MBTEX = methyl tert-butyl ether, benzene, toluene, ethylbenzene, and total xylenes; VOCs = volatile organic compounds; SVOCs = semi-volatile organic compounds; ;ND = no detection above laboratory reporting limit; NA = not analyzed or not applicable; mg/kg = milligrams per kilogram; mg/L = milligrams per liter; bg = below grade;

ESL = Environmental Screening Level for shallow soil in commercial /industrial areas where groundwater is considered a drinking water source (Water Board 2013); Concentration; Results in **bold-face** type exceed applicable ESL ; Results underlined show concentration at or exceeds 50 mg/kg (>10x the Cr STLC of 5 mg/kg) and required additional analysis by CA WET; CA-WET = California waste extraction test (> 5 mg/L STLC = Soluble Threshold Limit ;

* = only the pesticide dichlorodiphenyldichloroethylene (p,p-DDE) was detected; ** = only the SVOC, butylbenzyl phthalate (BBP) was detected, however it has no published ESL; *** = sample not analyzed for PCBs

ATTACHMENT A

Photo-Documentation



Subject: Recently graded site

Site: 7544 Dublin Blvd, Dublin, California

Date Taken: April 20, 2015

Project No.: SES 2015-28

Photographer: H. Pietropaoli

Photo No.: 01



Subject: Location of composite sample point

Site: 7544 Dublin Blvd, Dublin, California

Date Taken: June 3, 2015

Project No.: SES 2015-28

Photographer: H. Pietropaoli

Photo No.: 02

ATTACHMENT B

Certified Analytical Lab Report and Chain-of-Custody Documentation



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1506294

Report Created for: Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710

Project Contact: Richard Makdisi
Project P.O.:
Project Name: #2015-28; Soil Profiling

Project Received: 06/05/2015

Analytical Report reviewed & approved for release on 06/12/2015 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
WorkOrder: 1506294

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	sample diluted due to high organic content.
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C4	1506294-002A	Soil	06/03/2015 11:55	GC40	105921

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	06/09/2015 18:29
a-BHC	ND	0.0010	1	06/09/2015 18:29
b-BHC	ND	0.0010	1	06/09/2015 18:29
d-BHC	ND	0.0010	1	06/09/2015 18:29
g-BHC	ND	0.0010	1	06/09/2015 18:29
Chlordane (Technical)	ND	0.025	1	06/09/2015 18:29
a-Chlordane	ND	0.0010	1	06/09/2015 18:29
g-Chlordane	ND	0.0010	1	06/09/2015 18:29
p,p-DDD	ND	0.0010	1	06/09/2015 18:29
p,p-DDE	ND	0.0010	1	06/09/2015 18:29
p,p-DDT	ND	0.0010	1	06/09/2015 18:29
Dieldrin	ND	0.0010	1	06/09/2015 18:29
Endosulfan I	ND	0.0010	1	06/09/2015 18:29
Endosulfan II	ND	0.0010	1	06/09/2015 18:29
Endosulfan sulfate	ND	0.0010	1	06/09/2015 18:29
Endrin	ND	0.0010	1	06/09/2015 18:29
Endrin aldehyde	ND	0.0010	1	06/09/2015 18:29
Endrin ketone	ND	0.0010	1	06/09/2015 18:29
Heptachlor	ND	0.0010	1	06/09/2015 18:29
Heptachlor epoxide	ND	0.0010	1	06/09/2015 18:29
Hexachlorobenzene	ND	0.010	1	06/09/2015 18:29
Hexachlorocyclopentadiene	ND	0.020	1	06/09/2015 18:29
Methoxychlor	ND	0.0010	1	06/09/2015 18:29
Toxaphene	ND	0.050	1	06/09/2015 18:29
Surrogates	REC (%)	Limits		
Decachlorobiphenyl	104	70-130		06/09/2015 18:29

Analyst(s): SS



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8081A
Unit: mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC40	105921

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0050	5	06/09/2015 19:05
a-BHC	ND	0.0050	5	06/09/2015 19:05
b-BHC	ND	0.0050	5	06/09/2015 19:05
d-BHC	ND	0.0050	5	06/09/2015 19:05
g-BHC	ND	0.0050	5	06/09/2015 19:05
Chlordane (Technical)	ND	0.12	5	06/09/2015 19:05
a-Chlordane	ND	0.0050	5	06/09/2015 19:05
g-Chlordane	ND	0.0050	5	06/09/2015 19:05
p,p-DDD	ND	0.0050	5	06/09/2015 19:05
p,p-DDE	ND	0.0050	5	06/09/2015 19:05
p,p-DDT	ND	0.0050	5	06/09/2015 19:05
Dieldrin	ND	0.0050	5	06/09/2015 19:05
Endosulfan I	ND	0.0050	5	06/09/2015 19:05
Endosulfan II	ND	0.0050	5	06/09/2015 19:05
Endosulfan sulfate	ND	0.0050	5	06/09/2015 19:05
Endrin	ND	0.0050	5	06/09/2015 19:05
Endrin aldehyde	ND	0.0050	5	06/09/2015 19:05
Endrin ketone	ND	0.0050	5	06/09/2015 19:05
Heptachlor	ND	0.0050	5	06/09/2015 19:05
Heptachlor epoxide	ND	0.0050	5	06/09/2015 19:05
Hexachlorobenzene	ND	0.050	5	06/09/2015 19:05
Hexachlorocyclopentadiene	ND	0.10	5	06/09/2015 19:05
Methoxychlor	ND	0.0050	5	06/09/2015 19:05
Toxaphene	ND	0.25	5	06/09/2015 19:05

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	105	70-130	06/09/2015 19:05

Analyst(s): SS

Analytical Comments: a3



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8082
Unit: mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	GC5A	105946

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	06/12/2015 11:05
Aroclor1221	ND	0.050	1	06/12/2015 11:05
Aroclor1232	ND	0.050	1	06/12/2015 11:05
Aroclor1242	ND	0.050	1	06/12/2015 11:05
Aroclor1248	ND	0.050	1	06/12/2015 11:05
Aroclor1254	ND	0.050	1	06/12/2015 11:05
Aroclor1260	ND	0.050	1	06/12/2015 11:05
PCBs, total	ND	0.050	1	06/12/2015 11:05

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	76	70-130	06/12/2015 11:05

Analyst(s): SS **Analytical Comments:** h4



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	GC16	105924

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	06/11/2015 01:55
tert-Amyl methyl ether (TAME)	ND	0.0050	1	06/11/2015 01:55
Benzene	ND	0.0050	1	06/11/2015 01:55
Bromobenzene	ND	0.0050	1	06/11/2015 01:55
Bromochloromethane	ND	0.0050	1	06/11/2015 01:55
Bromodichloromethane	ND	0.0050	1	06/11/2015 01:55
Bromoform	ND	0.0050	1	06/11/2015 01:55
Bromomethane	ND	0.0050	1	06/11/2015 01:55
2-Butanone (MEK)	ND	0.020	1	06/11/2015 01:55
t-Butyl alcohol (TBA)	ND	0.050	1	06/11/2015 01:55
n-Butyl benzene	ND	0.0050	1	06/11/2015 01:55
sec-Butyl benzene	ND	0.0050	1	06/11/2015 01:55
tert-Butyl benzene	ND	0.0050	1	06/11/2015 01:55
Carbon Disulfide	ND	0.0050	1	06/11/2015 01:55
Carbon Tetrachloride	ND	0.0050	1	06/11/2015 01:55
Chlorobenzene	ND	0.0050	1	06/11/2015 01:55
Chloroethane	ND	0.0050	1	06/11/2015 01:55
Chloroform	ND	0.0050	1	06/11/2015 01:55
Chloromethane	ND	0.0050	1	06/11/2015 01:55
2-Chlorotoluene	ND	0.0050	1	06/11/2015 01:55
4-Chlorotoluene	ND	0.0050	1	06/11/2015 01:55
Dibromochloromethane	ND	0.0050	1	06/11/2015 01:55
1,2-Dibromo-3-chloropropane	ND	0.0040	1	06/11/2015 01:55
1,2-Dibromoethane (EDB)	ND	0.0040	1	06/11/2015 01:55
Dibromomethane	ND	0.0050	1	06/11/2015 01:55
1,2-Dichlorobenzene	ND	0.0050	1	06/11/2015 01:55
1,3-Dichlorobenzene	ND	0.0050	1	06/11/2015 01:55
1,4-Dichlorobenzene	ND	0.0050	1	06/11/2015 01:55
Dichlorodifluoromethane	ND	0.0050	1	06/11/2015 01:55
1,1-Dichloroethane	ND	0.0050	1	06/11/2015 01:55
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	06/11/2015 01:55
1,1-Dichloroethene	ND	0.0050	1	06/11/2015 01:55
cis-1,2-Dichloroethene	ND	0.0050	1	06/11/2015 01:55
trans-1,2-Dichloroethene	ND	0.0050	1	06/11/2015 01:55
1,2-Dichloropropane	ND	0.0050	1	06/11/2015 01:55
1,3-Dichloropropane	ND	0.0050	1	06/11/2015 01:55
2,2-Dichloropropane	ND	0.0050	1	06/11/2015 01:55
1,1-Dichloropropene	ND	0.0050	1	06/11/2015 01:55

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	GC16	105924
Analytes	Result		RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	06/11/2015 01:55
trans-1,3-Dichloropropene	ND		0.0050	1	06/11/2015 01:55
Diisopropyl ether (DIPE)	ND		0.0050	1	06/11/2015 01:55
Ethylbenzene	ND		0.0050	1	06/11/2015 01:55
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	06/11/2015 01:55
Freon 113	ND		0.0050	1	06/11/2015 01:55
Hexachlorobutadiene	ND		0.0050	1	06/11/2015 01:55
Hexachloroethane	ND		0.0050	1	06/11/2015 01:55
2-Hexanone	ND		0.0050	1	06/11/2015 01:55
Isopropylbenzene	ND		0.0050	1	06/11/2015 01:55
4-Isopropyl toluene	ND		0.0050	1	06/11/2015 01:55
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	06/11/2015 01:55
Methylene chloride	ND		0.0050	1	06/11/2015 01:55
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	06/11/2015 01:55
Naphthalene	ND		0.0050	1	06/11/2015 01:55
n-Propyl benzene	ND		0.0050	1	06/11/2015 01:55
Styrene	ND		0.0050	1	06/11/2015 01:55
1,1,1,2-Tetrachloroethane	ND		0.0050	1	06/11/2015 01:55
1,1,2,2-Tetrachloroethane	ND		0.0050	1	06/11/2015 01:55
Tetrachloroethene	ND		0.0050	1	06/11/2015 01:55
Toluene	ND		0.0050	1	06/11/2015 01:55
1,2,3-Trichlorobenzene	ND		0.0050	1	06/11/2015 01:55
1,2,4-Trichlorobenzene	ND		0.0050	1	06/11/2015 01:55
1,1,1-Trichloroethane	ND		0.0050	1	06/11/2015 01:55
1,1,2-Trichloroethane	ND		0.0050	1	06/11/2015 01:55
Trichloroethene	ND		0.0050	1	06/11/2015 01:55
Trichlorofluoromethane	ND		0.0050	1	06/11/2015 01:55
1,2,3-Trichloropropane	ND		0.0050	1	06/11/2015 01:55
1,2,4-Trimethylbenzene	ND		0.0050	1	06/11/2015 01:55
1,3,5-Trimethylbenzene	ND		0.0050	1	06/11/2015 01:55
Vinyl Chloride	ND		0.0050	1	06/11/2015 01:55
Xylenes, Total	ND		0.0050	1	06/11/2015 01:55

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions

WorkOrder: 1506294

Project: #2015-28; Soil Profiling

Extraction Method: SW5030B

Date Received: 6/5/15 17:55

Analytical Method: SW8260B

Date Prepared: 6/5/15

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	GC16	105924

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	104	70-130		06/11/2015 01:55
Toluene-d8	94	70-130		06/11/2015 01:55
4-BFB	93	70-130		06/11/2015 01:55
Benzene-d6	74	60-140		06/11/2015 01:55
Ethylbenzene-d10	81	60-140		06/11/2015 01:55
1,2-DCB-d4	83	60-140		06/11/2015 01:55

Analyst(s): KF



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC16	105924

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	06/11/2015 02:37
tert-Amyl methyl ether (TAME)	ND	0.0050	1	06/11/2015 02:37
Benzene	ND	0.0050	1	06/11/2015 02:37
Bromobenzene	ND	0.0050	1	06/11/2015 02:37
Bromochloromethane	ND	0.0050	1	06/11/2015 02:37
Bromodichloromethane	ND	0.0050	1	06/11/2015 02:37
Bromoform	ND	0.0050	1	06/11/2015 02:37
Bromomethane	ND	0.0050	1	06/11/2015 02:37
2-Butanone (MEK)	ND	0.020	1	06/11/2015 02:37
t-Butyl alcohol (TBA)	ND	0.050	1	06/11/2015 02:37
n-Butyl benzene	ND	0.0050	1	06/11/2015 02:37
sec-Butyl benzene	ND	0.0050	1	06/11/2015 02:37
tert-Butyl benzene	ND	0.0050	1	06/11/2015 02:37
Carbon Disulfide	ND	0.0050	1	06/11/2015 02:37
Carbon Tetrachloride	ND	0.0050	1	06/11/2015 02:37
Chlorobenzene	ND	0.0050	1	06/11/2015 02:37
Chloroethane	ND	0.0050	1	06/11/2015 02:37
Chloroform	ND	0.0050	1	06/11/2015 02:37
Chloromethane	ND	0.0050	1	06/11/2015 02:37
2-Chlorotoluene	ND	0.0050	1	06/11/2015 02:37
4-Chlorotoluene	ND	0.0050	1	06/11/2015 02:37
Dibromochloromethane	ND	0.0050	1	06/11/2015 02:37
1,2-Dibromo-3-chloropropane	ND	0.0040	1	06/11/2015 02:37
1,2-Dibromoethane (EDB)	ND	0.0040	1	06/11/2015 02:37
Dibromomethane	ND	0.0050	1	06/11/2015 02:37
1,2-Dichlorobenzene	ND	0.0050	1	06/11/2015 02:37
1,3-Dichlorobenzene	ND	0.0050	1	06/11/2015 02:37
1,4-Dichlorobenzene	ND	0.0050	1	06/11/2015 02:37
Dichlorodifluoromethane	ND	0.0050	1	06/11/2015 02:37
1,1-Dichloroethane	ND	0.0050	1	06/11/2015 02:37
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	06/11/2015 02:37
1,1-Dichloroethene	ND	0.0050	1	06/11/2015 02:37
cis-1,2-Dichloroethene	ND	0.0050	1	06/11/2015 02:37
trans-1,2-Dichloroethene	ND	0.0050	1	06/11/2015 02:37
1,2-Dichloropropane	ND	0.0050	1	06/11/2015 02:37
1,3-Dichloropropane	ND	0.0050	1	06/11/2015 02:37
2,2-Dichloropropane	ND	0.0050	1	06/11/2015 02:37
1,1-Dichloropropene	ND	0.0050	1	06/11/2015 02:37

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC16	105924
Analytes	Result		RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	06/11/2015 02:37
trans-1,3-Dichloropropene	ND		0.0050	1	06/11/2015 02:37
Diisopropyl ether (DIPE)	ND		0.0050	1	06/11/2015 02:37
Ethylbenzene	ND		0.0050	1	06/11/2015 02:37
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	06/11/2015 02:37
Freon 113	ND		0.0050	1	06/11/2015 02:37
Hexachlorobutadiene	ND		0.0050	1	06/11/2015 02:37
Hexachloroethane	ND		0.0050	1	06/11/2015 02:37
2-Hexanone	ND		0.0050	1	06/11/2015 02:37
Isopropylbenzene	ND		0.0050	1	06/11/2015 02:37
4-Isopropyl toluene	ND		0.0050	1	06/11/2015 02:37
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	06/11/2015 02:37
Methylene chloride	ND		0.0050	1	06/11/2015 02:37
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	06/11/2015 02:37
Naphthalene	ND		0.0050	1	06/11/2015 02:37
n-Propyl benzene	ND		0.0050	1	06/11/2015 02:37
Styrene	ND		0.0050	1	06/11/2015 02:37
1,1,1,2-Tetrachloroethane	ND		0.0050	1	06/11/2015 02:37
1,1,2,2-Tetrachloroethane	ND		0.0050	1	06/11/2015 02:37
Tetrachloroethene	ND		0.0050	1	06/11/2015 02:37
Toluene	ND		0.0050	1	06/11/2015 02:37
1,2,3-Trichlorobenzene	ND		0.0050	1	06/11/2015 02:37
1,2,4-Trichlorobenzene	ND		0.0050	1	06/11/2015 02:37
1,1,1-Trichloroethane	ND		0.0050	1	06/11/2015 02:37
1,1,2-Trichloroethane	ND		0.0050	1	06/11/2015 02:37
Trichloroethene	ND		0.0050	1	06/11/2015 02:37
Trichlorofluoromethane	ND		0.0050	1	06/11/2015 02:37
1,2,3-Trichloropropane	ND		0.0050	1	06/11/2015 02:37
1,2,4-Trimethylbenzene	ND		0.0050	1	06/11/2015 02:37
1,3,5-Trimethylbenzene	ND		0.0050	1	06/11/2015 02:37
Vinyl Chloride	ND		0.0050	1	06/11/2015 02:37
Xylenes, Total	ND		0.0050	1	06/11/2015 02:37

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC16	105924

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	103	70-130		06/11/2015 02:37
Toluene-d8	97	70-130		06/11/2015 02:37
4-BFB	93	70-130		06/11/2015 02:37
Benzene-d6	77	60-140		06/11/2015 02:37
Ethylbenzene-d10	84	60-140		06/11/2015 02:37
1,2-DCB-d4	86	60-140		06/11/2015 02:37

Analyst(s): KF



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/8/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC17	106005

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	06/08/2015 21:20
Acenaphthylene	ND	0.25	1	06/08/2015 21:20
Acetochlor	ND	0.25	1	06/08/2015 21:20
Anthracene	ND	0.25	1	06/08/2015 21:20
Benzidine	ND	1.3	1	06/08/2015 21:20
Benzo (a) anthracene	ND	0.25	1	06/08/2015 21:20
Benzo (b) fluoranthene	ND	0.25	1	06/08/2015 21:20
Benzo (k) fluoranthene	ND	0.25	1	06/08/2015 21:20
Benzo (g,h,i) perylene	ND	0.25	1	06/08/2015 21:20
Benzo (a) pyrene	ND	0.25	1	06/08/2015 21:20
Benzyl Alcohol	ND	1.3	1	06/08/2015 21:20
1,1-Biphenyl	ND	0.25	1	06/08/2015 21:20
Bis (2-chloroethoxy) Methane	ND	0.25	1	06/08/2015 21:20
Bis (2-chloroethyl) Ether	ND	0.25	1	06/08/2015 21:20
Bis (2-chloroisopropyl) Ether	ND	0.25	1	06/08/2015 21:20
Bis (2-ethylhexyl) Adipate	ND	0.25	1	06/08/2015 21:20
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	06/08/2015 21:20
4-Bromophenyl Phenyl Ether	ND	0.25	1	06/08/2015 21:20
Butylbenzyl Phthalate	1.0	0.25	1	06/08/2015 21:20
4-Chloroaniline	ND	0.50	1	06/08/2015 21:20
4-Chloro-3-methylphenol	ND	0.25	1	06/08/2015 21:20
2-Chloronaphthalene	ND	0.25	1	06/08/2015 21:20
2-Chlorophenol	ND	0.25	1	06/08/2015 21:20
4-Chlorophenyl Phenyl Ether	ND	0.25	1	06/08/2015 21:20
Chrysene	ND	0.25	1	06/08/2015 21:20
Dibenzo (a,h) anthracene	ND	0.25	1	06/08/2015 21:20
Dibenzofuran	ND	0.25	1	06/08/2015 21:20
Di-n-butyl Phthalate	ND	0.25	1	06/08/2015 21:20
1,2-Dichlorobenzene	ND	0.25	1	06/08/2015 21:20
1,3-Dichlorobenzene	ND	0.25	1	06/08/2015 21:20
1,4-Dichlorobenzene	ND	0.25	1	06/08/2015 21:20
3,3-Dichlorobenzidine	ND	0.50	1	06/08/2015 21:20
2,4-Dichlorophenol	ND	0.25	1	06/08/2015 21:20
Diethyl Phthalate	ND	0.25	1	06/08/2015 21:20
2,4-Dimethylphenol	ND	0.25	1	06/08/2015 21:20
Dimethyl Phthalate	ND	0.25	1	06/08/2015 21:20
4,6-Dinitro-2-methylphenol	ND	1.3	1	06/08/2015 21:20
2,4-Dinitrophenol	ND	6.3	1	06/08/2015 21:20

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/8/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC17	106005
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		0.25	1	06/08/2015 21:20
2,6-Dinitrotoluene	ND		0.25	1	06/08/2015 21:20
Di-n-octyl Phthalate	ND		0.50	1	06/08/2015 21:20
1,2-Diphenylhydrazine	ND		0.25	1	06/08/2015 21:20
Fluoranthene	ND		0.25	1	06/08/2015 21:20
Fluorene	ND		0.25	1	06/08/2015 21:20
Hexachlorobenzene	ND		0.25	1	06/08/2015 21:20
Hexachlorobutadiene	ND		0.25	1	06/08/2015 21:20
Hexachlorocyclopentadiene	ND		1.3	1	06/08/2015 21:20
Hexachloroethane	ND		0.25	1	06/08/2015 21:20
Indeno (1,2,3-cd) pyrene	ND		0.25	1	06/08/2015 21:20
Isophorone	ND		0.25	1	06/08/2015 21:20
2-Methylnaphthalene	ND		0.25	1	06/08/2015 21:20
2-Methylphenol (o-Cresol)	ND		0.25	1	06/08/2015 21:20
3 & 4-Methylphenol (m,p-Cresol)	ND		0.25	1	06/08/2015 21:20
Naphthalene	ND		0.25	1	06/08/2015 21:20
2-Nitroaniline	ND		1.3	1	06/08/2015 21:20
3-Nitroaniline	ND		1.3	1	06/08/2015 21:20
4-Nitroaniline	ND		1.3	1	06/08/2015 21:20
Nitrobenzene	ND		0.25	1	06/08/2015 21:20
2-Nitrophenol	ND		1.3	1	06/08/2015 21:20
4-Nitrophenol	ND		1.3	1	06/08/2015 21:20
N-Nitrosodiphenylamine	ND		0.25	1	06/08/2015 21:20
N-Nitrosodi-n-propylamine	ND		0.25	1	06/08/2015 21:20
Pentachlorophenol	ND		1.3	1	06/08/2015 21:20
Phenanthrene	ND		0.25	1	06/08/2015 21:20
Phenol	ND		0.25	1	06/08/2015 21:20
Pyrene	ND		0.25	1	06/08/2015 21:20
1,2,4-Trichlorobenzene	ND		0.25	1	06/08/2015 21:20
2,4,5-Trichlorophenol	ND		0.25	1	06/08/2015 21:20
2,4,6-Trichlorophenol	ND		0.25	1	06/08/2015 21:20

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Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/8/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC17	106005

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	95	30-130		06/08/2015 21:20
Phenol-d5	97	30-130		06/08/2015 21:20
Nitrobenzene-d5	79	30-130		06/08/2015 21:20
2-Fluorobiphenyl	81	30-130		06/08/2015 21:20
2,4,6-Tribromophenol	53	16-130		06/08/2015 21:20
4-Terphenyl-d14	88	30-130		06/08/2015 21:20

Analyst(s): HK



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C3	1506294-001A	Soil	06/03/2015 11:25	ICP-MS1	105932

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	06/09/2015 09:06
Arsenic	7.5	0.50	1	06/09/2015 09:06
Barium	120	5.0	1	06/09/2015 09:06
Beryllium	0.51	0.50	1	06/09/2015 09:06
Cadmium	ND	0.25	1	06/09/2015 09:06
Chromium	49	0.50	1	06/09/2015 09:06
Cobalt	10	0.50	1	06/09/2015 09:06
Copper	29	0.50	1	06/09/2015 09:06
Lead	11	0.50	1	06/09/2015 09:06
Mercury	ND	0.050	1	06/09/2015 09:06
Molybdenum	0.63	0.50	1	06/09/2015 09:06
Nickel	46	0.50	1	06/09/2015 09:06
Selenium	ND	0.50	1	06/09/2015 09:06
Silver	ND	0.50	1	06/09/2015 09:06
Thallium	ND	0.50	1	06/09/2015 09:06
Vanadium	50	0.50	1	06/09/2015 09:06
Zinc	83	5.0	1	06/09/2015 09:06
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Terbium	94	70-130		06/09/2015 09:06

Analyst(s): DB



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C6	1506294-004A	Soil	06/03/2015 12:55	ICP-MS1	105932

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	06/09/2015 18:10
Arsenic	5.1	0.50	1	06/09/2015 18:10
Barium	93	5.0	1	06/09/2015 18:10
Beryllium	ND	0.50	1	06/09/2015 18:10
Cadmium	ND	0.25	1	06/09/2015 18:10
Chromium	35	0.50	1	06/09/2015 18:10
Cobalt	6.9	0.50	1	06/09/2015 18:10
Copper	20	0.50	1	06/09/2015 18:10
Lead	7.7	0.50	1	06/09/2015 18:10
Mercury	ND	0.050	1	06/09/2015 18:10
Molybdenum	ND	0.50	1	06/09/2015 18:10
Nickel	36	0.50	1	06/09/2015 18:10
Selenium	ND	0.50	1	06/09/2015 18:10
Silver	ND	0.50	1	06/09/2015 18:10
Thallium	ND	0.50	1	06/09/2015 18:10
Vanadium	32	0.50	1	06/09/2015 18:10
Zinc	43	5.0	1	06/09/2015 18:10
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Terbium	94	70-130		06/09/2015 18:10

Analyst(s): DVH



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C3	1506294-001A	Soil	06/03/2015 11:25	GC7	105944

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	06/09/2015 00:51
MTBE	---	0.050	1	06/09/2015 00:51
Benzene	ND	0.0050	1	06/09/2015 00:51
Toluene	ND	0.0050	1	06/09/2015 00:51
Ethylbenzene	ND	0.0050	1	06/09/2015 00:51
Xylenes	ND	0.0050	1	06/09/2015 00:51

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	100	70-130	06/09/2015 00:51

Analyst(s): HD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C4	1506294-002A	Soil	06/03/2015 11:55	GC7	105944

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	06/09/2015 01:54
MTBE	---	0.050	1	06/09/2015 01:54
Benzene	ND	0.0050	1	06/09/2015 01:54
Toluene	ND	0.0050	1	06/09/2015 01:54
Ethylbenzene	ND	0.0050	1	06/09/2015 01:54
Xylenes	ND	0.0050	1	06/09/2015 01:54

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	97	70-130	06/09/2015 01:54

Analyst(s): HD

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	GC19	105944

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	06/09/2015 22:30
MTBE	---	0.050	1	06/09/2015 22:30
Benzene	ND	0.0050	1	06/09/2015 22:30
Toluene	ND	0.0050	1	06/09/2015 22:30
Ethylbenzene	ND	0.0050	1	06/09/2015 22:30
Xylenes	ND	0.0050	1	06/09/2015 22:30

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	109	70-130	06/09/2015 22:30

Analyst(s): HD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C6	1506294-004A	Soil	06/03/2015 12:55	GC19	105944

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	06/09/2015 22:00
MTBE	---	0.050	1	06/09/2015 22:00
Benzene	ND	0.0050	1	06/09/2015 22:00
Toluene	ND	0.0050	1	06/09/2015 22:00
Ethylbenzene	ND	0.0050	1	06/09/2015 22:00
Xylenes	ND	0.0050	1	06/09/2015 22:00

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	84	70-130	06/09/2015 22:00

Analyst(s): HD

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC19	105944

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	06/10/2015 04:34
MTBE	---	0.050	1	06/10/2015 04:34
Benzene	ND	0.0050	1	06/10/2015 04:34
Toluene	ND	0.0050	1	06/10/2015 04:34
Ethylbenzene	ND	0.0050	1	06/10/2015 04:34
Xylenes	ND	0.0050	1	06/10/2015 04:34

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	105	70-130	06/10/2015 04:34

Analyst(s): HD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C8	1506294-006A	Soil	06/03/2015 13:55	GC19	105944

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	06/10/2015 05:05
MTBE	---	0.050	1	06/10/2015 05:05
Benzene	ND	0.0050	1	06/10/2015 05:05
Toluene	ND	0.0050	1	06/10/2015 05:05
Ethylbenzene	ND	0.0050	1	06/10/2015 05:05
Xylenes	ND	0.0050	1	06/10/2015 05:05

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	94	70-130	06/10/2015 05:05

Analyst(s): HD



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15-6/8/15

WorkOrder: 1506294
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C4	1506294-002A	Soil	06/03/2015 11:55	ICP-JY	105945

Analytes	Result	RL	DF	Date Analyzed
Lead	8.1	5.0	1	06/08/2015 15:27
Surrogates	REC (%)	Limits		
Tb 350.917	106	70-130		06/08/2015 15:27

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	ICP-JY	105949

Analytes	Result	RL	DF	Date Analyzed
Lead	7.7	5.0	1	06/09/2015 13:06
Surrogates	REC (%)	Limits		
Tb 350.917	95	70-130		06/09/2015 13:06

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	ICP-JY	105949

Analytes	Result	RL	DF	Date Analyzed
Lead	27	5.0	1	06/09/2015 13:09
Surrogates	REC (%)	Limits		
Tb 350.917	96	70-130		06/09/2015 13:09

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C8	1506294-006A	Soil	06/03/2015 13:55	ICP-JY	105996

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	5.0	1	06/09/2015 13:11
Surrogates	REC (%)	Limits		
Tb 350.917	96	70-130		06/09/2015 13:11

Analyst(s): DVH



Analytical Report

Client: Stellar Environmental Solutions
Project: #2015-28; Soil Profiling
Date Received: 6/5/15 17:55
Date Prepared: 6/5/15

WorkOrder: 1506294
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C4	1506294-002A	Soil	06/03/2015 11:55	GC2B	105926

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.1	1.0	1	06/07/2015 06:06
TPH-Motor Oil (C18-C36)	13	5.0	1	06/07/2015 06:06

Surrogates	REC (%)	Limits	Date Analyzed
C9	94	70-130	06/07/2015 06:06

Analyst(s): TK **Analytical Comments:** e7,e2

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C5	1506294-003A	Soil	06/03/2015 12:25	GC31B	105926

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	10	10	1	06/09/2015 16:26
TPH-Motor Oil (C18-C36)	80	50	1	06/09/2015 16:26

Surrogates	REC (%)	Limits	Date Analyzed
C9	90	70-130	06/09/2015 16:26

Analyst(s): TK **Analytical Comments:** e7,e2

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C6	1506294-004A	Soil	06/03/2015 12:55	GC2A	105926

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2.3	2.0	2	06/11/2015 13:08
TPH-Motor Oil (C18-C36)	17	10	2	06/11/2015 13:08

Surrogates	REC (%)	Limits	Date Analyzed
C9	102	70-130	06/11/2015 13:08

Analyst(s): TK **Analytical Comments:** e7,e2

(Cont.)



Analytical Report

Client: Stellar Environmental Solutions

WorkOrder: 1506294

Project: #2015-28; Soil Profiling

Extraction Method: SW3550B

Date Received: 6/5/15 17:55

Analytical Method: SW8015B

Date Prepared: 6/5/15

Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
C7	1506294-005A	Soil	06/03/2015 13:25	GC2A	105926

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.6	1.0	1	06/09/2015 09:33
TPH-Motor Oil (C18-C36)	11	5.0	1	06/09/2015 09:33

Surrogates	REC (%)	Limits	Date Analyzed
C9	106	70-130	06/09/2015 09:33

Analyst(s): TK

Analytical Comments: e7,e2



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/6/15
Instrument: GC23
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105921
Extraction Method: SW3550B
Analytical Method: SW8081A
Unit: mg/kg
Sample ID: MB/LCS-105921
 1506276-022AMS/MSD

QC Summary Report for SW8081A

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0576	0.0010	0.050	-	114	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0530	0.0010	0.050	-	106	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0442	0.0010	0.050	-	88	70-130
Dieldrin	ND	0.0648	0.0010	0.050	-	130	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0570	0.0010	0.050	-	114	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0495	0.0010	0.050	-	99	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
PCBs, total	ND	-	0.050	-	-	-	-

Surrogate Recovery

Decachlorobiphenyl	0.0474	0.0439		0.050	95	88	70-130
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/6/15
Instrument: GC23
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105921
Extraction Method: SW3550B
Analytical Method: SW8081A
Unit: mg/kg
Sample ID: MB/LCS-105921
 1506276-022AMS/MSD

QC Summary Report for SW8081A

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	0.0559	0.0568	0.050	ND	112	114	70-130	1.62	30
g-BHC	0.0538	0.0559	0.050	ND	108	112	70-130	3.80	30
p,p-DDT	0.0315	0.0313	0.050	ND	63,F1	63,F1	70-130	0	30
Dieldrin	0.0618	0.0618	0.050	ND	124	124	70-130	0	30
Endrin	0.0566	0.0577	0.050	ND	113	115	70-130	2.01	30
Heptachlor	0.0516	0.0529	0.050	ND	103	106	70-130	2.43	30
Surrogate Recovery									
Decachlorobiphenyl	0.0407	0.0393	0.050		81	79	70-130	3.36	30



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/6/15
Instrument: GC5A
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105946
Extraction Method: SW3550B
Analytical Method: SW8082
Unit: mg/kg
Sample ID: MB/LCS-105946
 1506294-003AMS/MSD

QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.149	0.050	0.15	-	100	70-130
PCBs, total	ND	-	0.050	-	-	-	-

Surrogate Recovery

Decachlorobiphenyl	0.0421	0.0431		0.050	84	86	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.144	0.142	0.15	ND	96	95	70-130	1.28	30

Surrogate Recovery

Decachlorobiphenyl	0.0398	0.0375	0.050		80	75	70-130	6.00	30
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/6/15 - 6/8/15
Instrument: GC16, GC18
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105924
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-105924
 1506270-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0516	0.0050	0.050	-	103	53-116
Benzene	ND	0.0491	0.0050	0.050	-	98	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.239	0.050	0.20	-	120	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0459	0.0050	0.050	-	92	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0513	0.0040	0.050	-	103	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0499	0.0040	0.050	-	100	58-135
1,1-Dichloroethene	ND	0.0433	0.0050	0.050	-	87	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/6/15 - 6/8/15
Instrument: GC16, GC18
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105924
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-105924
 1506270-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0485	0.0050	0.050	-	97	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0512	0.0050	0.050	-	103	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0523	0.0050	0.050	-	105	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0455	0.0050	0.050	-	91	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0472	0.0050	0.050	-	94	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	0.126	0.132		0.12	101	106	70-130
Toluene-d8	0.124	0.118		0.12	100	94	70-130
4-BFB	0.0126	0.0116		0.012	101	92	70-130
Benzene-d6	0.140	0.0853		0.10	140	85	60-140
Ethylbenzene-d10	0.128	0.0927		0.10	128	93	60-140
1,2-DCB-d4	0.101	0.0938		0.10	101	94	60-140

(Cont.)



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/6/15 - 6/8/15
Instrument: GC16, GC18
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105924
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-105924
 1506270-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0501	0.0480	0.050	ND	100	96	70-130	4.26	20
Benzene	0.0450	0.0428	0.050	ND	90	86	70-130	5.01	20
t-Butyl alcohol (TBA)	0.238	0.235	0.20	ND	119	118	70-130	1.26	20
Chlorobenzene	0.0512	0.0486	0.050	ND	102	97	70-130	5.17	20
1,2-Dibromoethane (EDB)	0.0564	0.0536	0.050	ND	113	107	70-130	5.09	20
1,2-Dichloroethane (1,2-DCA)	0.0531	0.0512	0.050	ND	106	102	70-130	3.71	20
1,1-Dichloroethene	0.0443	0.0423	0.050	ND	89	85	70-130	4.79	20
Diisopropyl ether (DIPE)	0.0482	0.0460	0.050	ND	96	92	70-130	4.74	20
Ethyl tert-butyl ether (ETBE)	0.0545	0.0520	0.050	ND	109	104	70-130	4.74	20
Methyl-t-butyl ether (MTBE)	0.0554	0.0534	0.050	ND	111	107	70-130	3.64	20
Toluene	0.0467	0.0446	0.050	ND	93	89	70-130	4.59	20
Trichloroethene	0.0493	0.0470	0.050	ND	99	94	70-130	4.68	20
Surrogate Recovery									
Dibromofluoromethane	0.128	0.129	0.12		103	103	70-130	0	20
Toluene-d8	0.123	0.123	0.12		98	98	70-130	0	20
4-BFB	0.0127	0.0127	0.012		102	101	70-130	0.268	20
Benzene-d6	0.131	0.125	0.10		131	125	60-140	4.21	20
Ethylbenzene-d10	0.122	0.116	0.10		122	116	60-140	4.66	20
1,2-DCB-d4	0.104	0.100	0.10		104	100	60-140	3.76	20



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/8/15
Date Analyzed: 6/8/15
Instrument: GC17
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 106005
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-106005
 1506294-005AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.84	0.25	5	-	77	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	4.30	0.25	5	-	86	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.35	0.25	5	-	87	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.70	0.25	5	-	74	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.13	0.25	5	-	83	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/8/15
Date Analyzed: 6/8/15
Instrument: GC17
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 106005
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-106005
 1506294-005AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.14	1.3	5	-	63	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.40	0.25	5	-	68	30-130
Pentachlorophenol	ND	3.00	1.3	5	-	60	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.92	0.25	5	-	78	30-130
Pyrene	ND	4.08	0.25	5	-	82	30-130
1,2,4-Trichlorobenzene	ND	4.12	0.25	5	-	82	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

Surrogate Recovery

2-Fluorophenol	4.37	4.19		5	87	84	30-130
Phenol-d5	4.81	4.47		5	96	89	30-130
Nitrobenzene-d5	4.16	4.00		5	83	80	30-130
2-Fluorobiphenyl	4.15	3.87		5	83	77	30-130
2,4,6-Tribromophenol	1.98	2.67		5	40	53	16-130
4-Terphenyl-d14	4.36	4.15		5	87	83	30-130

(Cont.)



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/8/15
Date Analyzed: 6/8/15
Instrument: GC17
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 106005
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-106005
 1506294-005AMS/MSD

QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	4.04	4.24	5	ND	81	85	30-130	4.82	30
4-Chloro-3-methylphenol	4.47	4.68	5	ND	89	94	30-130	4.54	30
2-Chlorophenol	4.47	4.75	5	ND	89	95	30-130	6.21	30
1,4-Dichlorobenzene	3.66	3.86	5	ND	73	77	30-130	5.26	30
2,4-Dinitrotoluene	4.34	4.51	5	ND	87	90	30-130	3.68	30
4-Nitrophenol	3.96	4.10	5	ND	79	82	30-130	3.47	30
N-Nitrosodi-n-propylamine	3.50	3.72	5	ND	70	74	30-130	5.97	30
Pentachlorophenol	5.63	5.83	5	ND	113	117	30-130	3.48	30
Phenol	3.97	4.23	5	ND	79	85	30-130	6.30	30
Pyrene	4.30	4.60	5	ND	86	92	30-130	6.84	30
1,2,4-Trichlorobenzene	4.15	4.41	5	ND	83	88	30-130	6.12	30

Surrogate Recovery

2-Fluorophenol	4.16	4.46	5		83	89	30-130	6.79	30
Phenol-d5	4.43	4.59	5		89	92	30-130	3.73	30
Nitrobenzene-d5	3.87	4.03	5		77	81	30-130	4.08	30
2-Fluorobiphenyl	3.92	4.16	5		78	83	30-130	5.92	30
2,4,6-Tribromophenol	2.95	3.07	5		59	61	16-130	3.99	30
4-Terphenyl-d14	4.12	4.40	5		82	88	30-130	6.48	30



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/8/15
Instrument: ICP-MS2
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105932
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-105932
 1506276-024AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	53.4	0.50	50	-	107	75-125
Arsenic	ND	57.6	0.50	50	-	115	75-125
Barium	ND	570	5.0	500	-	114	75-125
Beryllium	ND	58.0	0.50	50	-	116	75-125
Cadmium	ND	55.6	0.25	50	-	111	75-125
Chromium	ND	56.4	0.50	50	-	113	75-125
Cobalt	ND	56.4	0.50	50	-	113	75-125
Copper	ND	59.3	0.50	50	-	119	75-125
Lead	ND	55.2	0.50	50	-	110	75-125
Mercury	ND	1.25	0.050	1.25	-	100	75-125
Molybdenum	ND	52.0	0.50	50	-	104	75-125
Nickel	ND	58.4	0.50	50	-	117	75-125
Selenium	ND	57.4	0.50	50	-	115	75-125
Silver	ND	54.0	0.50	50	-	108	75-125
Thallium	ND	52.7	0.50	50	-	105	75-125
Vanadium	ND	56.2	0.50	50	-	112	75-125
Zinc	ND	591	5.0	500	-	118	75-125
Surrogate Recovery							
Terbium	483	522		500	97	104	70-130



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/8/15
Instrument: ICP-MS2
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105932
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-105932
 1506276-024AMS/MSD

QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	48.3	51.0	50	ND	96	101	75-125	5.32	20
Arsenic	51.3	55.7	50	5.241	92	101	75-125	8.16	20
Barium	1050	926	500	400	129,F1	105	75-125	12.3	20
Beryllium	42.4	43.3	50	0.70	83	85	75-125	2.03	20
Cadmium	49.2	52.0	50	ND	98	104	75-125	5.41	20
Chromium	77.0	87.6	50	33	87	108	75-125	12.9	20
Cobalt	55.7	61.5	50	9.2	93	105	75-125	9.95	20
Copper	69.2	79.0	50	24	89	109	75-125	13.2	20
Lead	56.1	61.5	50	8.6	95	106	75-125	9.24	20
Mercury	1.13	1.22	1.25	ND	89	96	75-125	7.80	20
Molybdenum	45.4	48.2	50	ND	90	96	75-125	5.99	20
Nickel	68.9	78.8	50	22	94	114	75-125	13.5	20
Selenium	48.2	52.0	50	ND	96	103	75-125	7.46	20
Silver	42.7	45.4	50	ND	85	91	75-125	6.04	20
Thallium	44.8	47.9	50	ND	89	95	75-125	6.73	20
Vanadium	NR	NR	50	70	NR	NR	75-125	NR	20
Zinc	553	602	500	58	99	109	75-125	8.64	20
Surrogate Recovery									
Terbium	469	498	500		94	100	70-130	6.06	20



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/8/15
Instrument: GC7
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105944
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-105944
 1506283-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.574	0.40	0.60	-	96	70-130
MTBE	ND	0.104	0.050	0.10	-	104	70-130
Benzene	ND	0.0955	0.0050	0.10	-	95	70-130
Toluene	ND	0.0922	0.0050	0.10	-	91	70-130
Ethylbenzene	ND	0.0984	0.0050	0.10	-	98	70-130
Xylenes	ND	0.308	0.0050	0.30	-	102	70-130

Surrogate Recovery

2-Fluorotoluene	0.106	0.102		0.10	106	102	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.508	0.509	0.60	ND	85	85	70-130	0	20
MTBE	0.0984	0.107	0.10	ND	98	107	70-130	8.29	20
Benzene	0.0819	0.0844	0.10	ND	82	84	70-130	3.00	20
Toluene	0.0800	0.0836	0.10	ND	80	84	70-130	4.36	20
Ethylbenzene	0.0865	0.0886	0.10	ND	86	89	70-130	2.46	20
Xylenes	0.269	0.276	0.30	ND	90	92	70-130	2.52	20

Surrogate Recovery

2-Fluorotoluene	0.0893	0.0897	0.10		89	90	70-130	0.470	20
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/8/15
Instrument: ICP-JY
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105945
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg
Sample ID: MB/LCS-105945
 1506294-002AMS/MSD

QC Summary Report for Lead

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.2	5.0	50	-	100	75-125

Surrogate Recovery

Tb 350.917	507	504		500	101	101	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	60.1	56.9	50	8.138	104	98	75-125	5.51	25

Surrogate Recovery

Tb 350.917	502	464	500		100	93	70-130	7.76	20
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/8/15
Instrument: ICP-JY
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105949
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg
Sample ID: MB/LCS-105949
 1506294-006AMS/MSD

QC Summary Report for Lead

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	53.4	5.0	50	-	107	75-125

Surrogate Recovery

Tb 350.917	508	521		500	102	104	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	58.8	60.4	50	ND	113	116	75-125	2.77	25

Surrogate Recovery

Tb 350.917	503	534	500		101	107	70-130	5.98	20
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Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/8/15
Date Analyzed: 6/9/15
Instrument: ICP-JY
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105996
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg
Sample ID: MB/LCS-105996

QC Summary Report for Lead

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.6	5.0	50	-	101	75-125
Surrogate Recovery							
Tb 350.917	536	577		500	107	115	70-130



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 6/5/15
Date Analyzed: 6/5/15
Instrument: GC6A, GC6B
Matrix: Soil
Project: #2015-28; Soil Profiling

WorkOrder: 1506294
BatchID: 105926
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-105926
 1506272-002AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	46.2	1.0	40	-	115	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	26.3	24.9		25	105	100	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	74.6	77.6	40	31.91	107	114	70-130	3.95	30
Surrogate Recovery									
C9	24.2	24.7	25		97	99	70-130	2.04	30



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1506294

ClientCode: SESB

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Richard Makdisi
 Stellar Environmental Solutions
 2198 Sixth St. #201
 Berkeley, CA 94710
 (510) 644-3123 FAX: (510) 644-3859

Email: rmakdisi@stellar-environmental.com;sbittm
 cc/3rd Party:
PO:
 ProjectNo: #2015-28; Soil Profiling

Bill to:
 Accounts Payable
 Stellar Enviornmental Solutions
 2198 Sixth St. #201
 Berkeley, CA 94710
 lwheeler@stellar-environmental.com

Requested TAT: **5 days**

Date Received: **06/05/2015**
Date Printed: **06/05/2015**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1506294-001	C3	Soil	6/3/2015 11:25	<input type="checkbox"/>						A	A						
1506294-002	C4	Soil	6/3/2015 11:55	<input type="checkbox"/>	A						A	A	A				
1506294-003	C5	Soil	6/3/2015 12:25	<input type="checkbox"/>		A	A				A	A	A				
1506294-004	C6	Soil	6/3/2015 12:55	<input type="checkbox"/>						A	A		A				
1506294-005	C7	Soil	6/3/2015 13:25	<input type="checkbox"/>	A		A	A			A	A	A				
1506294-006	C8	Soil	6/3/2015 13:55	<input type="checkbox"/>							A	A					

Test Legend:

1	8081_S	2	8082_PCB_S	3	8260B_S	4	8270_S	5	CAM17MS_S
6	G-MBTEX_S	7	PB_S	8	TPH(DMO)_S	9		10	
11		12							

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: STELLAR ENVIRONMENTAL SOLUTIONS

QC Level: LEVEL 2

Work Order: 1506294

Project: #2015-28; Soil Profiling

Client Contact: Richard Makdisi

Date Received: 6/5/2015

Comments:

Contact's Email: rmakdisi@stellar-
 environmental.com;sbittman@stellar-

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1506294-001A	C3	Soil	SW8021B/8015Bm (G/MBTEX)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 11:25	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days			
1506294-002A	C4	Soil	SW8015B (Diesel & Motor Oil)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 11:55	5 days		<input type="checkbox"/>	
			SW6010B (Lead)			<input type="checkbox"/>		5 days			
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days			
			SW8081A (OC Pesticides)			<input type="checkbox"/>		5 days			
1506294-003A	C5	Soil	SW8015B (Diesel & Motor Oil)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 12:25	5 days		<input type="checkbox"/>	
			SW6010B (Lead)			<input type="checkbox"/>		5 days			
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
			SW8082 (PCBs Only)			<input type="checkbox"/>		5 days			
1506294-004A	C6	Soil	SW8015B (Diesel & Motor Oil)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 12:55	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days			
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days			
1506294-005A	C7	Soil	SW8015B (Diesel & Motor Oil)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 13:25	5 days		<input type="checkbox"/>	
			SW6010B (Lead)			<input type="checkbox"/>		5 days			

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: STELLAR ENVIRONMENTAL SOLUTIONS

QC Level: LEVEL 2

Work Order: 1506294

Project: #2015-28; Soil Profiling

Client Contact: Richard Makdisi

Date Received: 6/5/2015

Comments:

Contact's Email: rmakdisi@stellar-
 environmental.com;sbittman@stellar-

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1506294-005A	C7	Soil	SW8021B/8015Bm (G/MBTEX)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 13:25	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
			SW8081A (OC Pesticides)			<input type="checkbox"/>		5 days			
1506294-006A	C8	Soil	SW6010B (Lead)	1	16OZ GJ	<input type="checkbox"/>	6/3/2015 13:55	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days			

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1506294 Chain of Custody Record

Lab job no. _____

Date _____

Page 1 of 1

Laboratory McC Campbell Analytical Inc
 Address 1534 Willow Pass Road
Pittsburg, CA 94565-1701
877-252-9262

Method of Shipment Hand Delivery Courier

Shipment No. _____

Airbill No. _____

Cooler No. _____

Project Owner BayWest Dev
 Site Address 7544 Dublin Blvd, Dublin CA

Project Manager Richard Makdisi

Telephone No. (510) 644-3123

Project Name Soil Profiling

Fax No. (510) 644-3859

Project Number 2015-28

Samplers: (Signature) [Signature]

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Filtered	No. of Containers	Analysis Required										Remarks				
						Cooler	Chemical			TPH	PH	gms	BTEX	VOCs	pesticides	THle	TPH	PCBs	MD		SVOCs			
C3	0-8"	6/3/15	1125	Soil	16 oz glass	yes	no	no	1	X														
C4	↓	↓	1155	↓	↓	↓	↓	↓	1	X	X		X											
C5	↓	↓	1225	↓	↓	↓	↓	↓	1	X	X	X			X	X								
C6	↓	↓	1255	↓	↓	↓	↓	↓	1	X			X	X	X									
C7	↓	↓	1325	↓	↓	↓	↓	↓	1	X	X	X	X		X									
C8	↓	↓	1355	↓	↓	↓	↓	↓	1	X	X													

ICE IT - 2.5
 GOOD CONDITION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION: VOCs U&G METALS OTHER

Relinquished by: [Signature]
 Signature _____
 Printed Henry Pietropaoli
 Company Stellar Environmental

Date 6/5/15
 Received by: [Signature]
 Signature _____
 Printed Cummins
 Company NAI

Date 6/5/15
 Relinquished by: [Signature]
 Signature _____
 Printed Cummins
 Company NAI

Date 6/5/15
 Received by: [Signature]
 Signature _____
 Printed Angstina V.
 Company NAI

Turnaround Time: Samples on ice
 Comments: Standard

Relinquished by: _____
 Signature _____
 Printed _____
 Company _____

2000-00-01



Sample Receipt Checklist

Client Name: **Stellar Environmental Solutions**

Date and Time Received: **6/5/2015 5:55:43 PM**

Project Name: **#2015-28; Soil Profiling**

LogIn Reviewed by: **Agustina Venegas**

WorkOrder No: **1506294** Matrix: Soil

Carrier: Bernie Cummins (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Sample/Temp Blank temperature Temp: 2.5°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No NA
- Sample labels checked for correct preservation? Yes No
- pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: WET ICE)

UCMR3 Samples:

- Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA
- Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments: