November 5, 2013
Project No. 401823001

Mr. Mark Detterman
Senior Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Evaluation of Proposed Source of Imported Fill Material for Use at
540 Cleveland Avenue
Albany, California
RO# 3009

Dear Mr. Detterman:

Ninyo & Moore has performed an evaluation of a proposed source of imported fill material for the backfilling of remedial excavations at 540 Cleveland Avenue, Albany, California (site). Information for the proposed source of imported fill material was provided to Ninyo & Moore by Innovative Construction Solutions (ICS), the contractor performing remedial excavation activities at the site. Information provided by ICS for the proposed source of imported fill material includes a Phase I Environmental Site Assessment (ESA), a Preliminary Geotechnical Investigation report, and laboratory analytical reports for soil samples. Our evaluation of this information and opinions regarding this proposed source of imported fill material are presented below.

LOCATION AND BACKGROUND INFORMATION FOR PROPOSED IMPORT FILL SOURCE

The proposed source of imported fill material is located at 1960 North Main Street in Walnut Creek, California. According to the Phase I ESA prepared by GaiaTech, dated August 2010, the approximately 1.2 acre property consisted of agricultural and undeveloped land in the 1930s. By the early 1960s the property was occupied by a used car dealership, and in 1963 a motel was constructed on the property which was still operating at the time of the Phase I ESA.

The only Recognized Environmental Condition (REC) identified in the Phase I ESA for the property was a gas station adjacent to the northwest of the property. According to the Phase I

ESA, the gas station was constructed in 1978, and it's fuel underground storage tanks (USTs) were replaced in 1992, at which time soil contamination was discovered. The gas station was granted case closure; however, available information indicated that residual diesel and gasoline contamination remained at the gas station.

PRELIMINARY GEOTECHNICAL INVESTIGATION

A Preliminary Geotechnical Investigation report, dated January 2011, was prepared for the property by GEOCON. The GEOCON report includes boring logs for 4 borings advanced at the property to depths ranging from approximately 25 to 40 feet below ground surface. According to information presented in the report, groundwater was encountered at a depth of approximately 38.5 feet bgs in Boring B-1, which was advanced in the western portion of the site, near the gas station adjacent to the northwest of the site. No indications of subsurface environmental impacts were noted on the borings logs or discussed in the GEOCON report. A copy of the GEOCON report is attached for your reference.

LABORATORY ANALYSIS OF SOIL SAMPLES

In July 2013, eight soil samples (S-1 through S-8) were collected in-place from the proposed borrow area and were tested for environmental contaminants in general accordance with the guidelines of the Department of Toxic Substances Control (DTSC) Information Advisory for Clean Imported Fill Material, dated October 2001; however, analysis of total petroleum hydrocarbons as gasoline (TPHg) was not performed on the soil samples.

No detectable concentrations of volatile organic compounds (VOCs) and only minor concentrations of total petroleum hydrocarbons as diesel (TPHd) and total petroleum hydrocarbons as motor oil (TPHmo) were reported in the soil samples. Minor concentrations of some pesticides were detected in the soil samples, however the concentrations are well below the Environmental Screening Levels (ESLs) which are being used as cleanup goals (CGs) for the site. No concentrations of polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), or asbestos were detected in the soil samples. All detected concentrations of metals are below site

CGs with the exception of one concentration of arsenic detected at 7.4 mg/kg, which slightly exceeds the CG of 7 mg/kg. All other detected concentrations of arsenic are significantly lower and the average (mean) concentration for arsenic is approximately 3.9 mg/kg, which is well below the CG. Copies of laboratory analytical reports are attached for your reference.

OPINIONS

Based on our review of the information discussed above, Ninyo & Moore presents the following opinions regarding the proposed source of import fill material:

- Impacts from the adjacent gas station are not likely to be encountered in soil being excavated from the proposed borrow area because ground water was encountered below 30 feet bgs, and the depth of excavation is approximately 15 feet bgs.
- Because no detectable concentrations of VOCs and only minor concentrations of TPHd and TPHmo were reported in the soil samples, we feel that analysis of TPHg is not necessary to evaluate the suitability of this soil for use as backfill material at the site.
- Based on the information reviewed by Ninyo & Moore and discussed above, we feel that the proposed source imported fill material located at 1960 North Main Street in Walnut Creek, California, is suitable for use as backfill material at the site.

Please let us know if Alameda County Environmental Health would approve this proposed source of imported fill materials or if any further information would be required.

Sincerely,
NINYO & MOORE

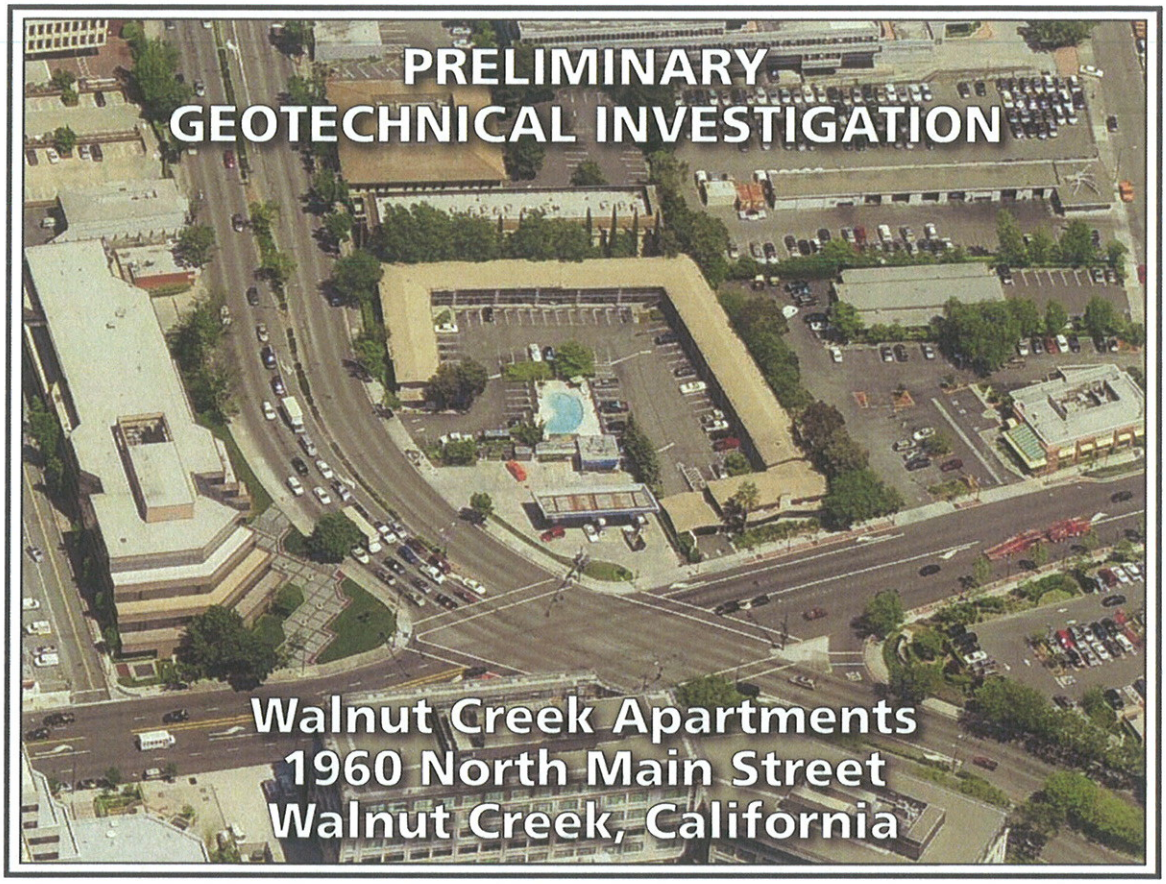
Professional Geologist
Kristopher M. Larson
No. 8059
State of California

Cem R. Atabek
Senior Project Environmental Engineer

Kristopher M. Larson, PG
Principal Environmental Geologist

CRA/KML/caa

Attachments: 1) Soils Report
2) Laboratory Analytical Reports



PREPARED FOR:

BLACKROCK
4400 MACARTHUR BOULEVARD
NEWPORT BEACH, CALIFORNIA 92660

BLACKROCK

PREPARED BY:

GEOCON CONSULTANTS, INC.
6671 BRISA STREET
LIVERMORE, CALIFORNIA 94550

GEOCON

GEOCON PROJECT NO. E8547-06-01

JANUARY 2011

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. E8547-06-01
January 28, 2011

BlackRock
4400 MacArthur Boulevard
Suite 700
Newport Beach, California 92660

Attention: Mr. Justin Loiacono

Subject: WALNUT CREEK APARTMENTS
1960 NORTH MAIN STREET
WALNUT CREEK, CALIFORNIA
PRELIMINARY GEOTECHNICAL INVESTIGATION

Dear Mr. Loiacono:

In accordance with your authorization of our proposal dated August 30, 2010, we have performed a geotechnical investigation for the subject project in Walnut Creek, California. Our investigation was performed to observe the soil and geologic conditions that may impact site development. The accompanying report presents the results of our study and conclusions and recommendations pertaining to the geotechnical aspects of the proposed new development. Our preliminary opinions regarding geotechnical feasibility of the development were presented in our report titled *Geotechnical Feasibility Summary, Walnut Creek Apartments, 1960 North Main Street, Walnut Creek, California,* dated October 8, 2010. The findings of this study indicate the site is suitable for development as planned provided the recommendations of this report are implemented during design and construction. We note that project design details were evolving at the time of this report. A final geotechnical report will be issued once design in completed.

If you have any questions regarding this report, or if we may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

Shane Rodacker, PE, GE
Senior Engineer

(4) Addressee
(1/email) BlackRock
Attention: Mr. Leland Nakaoka

(1/email) Mill Creek Residential Trust
Attention: Mr. Alex Waterbury

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

PRELIMINARY GEOTECHNICAL INVESTIGATION

1. PURPOSE AND SCOPE

This report presents the results of a preliminary geotechnical investigation for a proposed multi-family apartment project near the southeast corner of Ygnacio Valley Road and North Main Street in Walnut Creek, California (see Vicinity Map, Figure 1). The purpose of this investigation was to evaluate the subsurface soil and geologic conditions in the area of the planned development and, based on the encountered conditions, provide conclusions and recommendations pertaining to the geotechnical aspects of the project design and construction.

The scope of this investigation included field exploration, laboratory testing, engineering analysis and the preparation of this report and a prior feasibility summary. Our field exploration was performed on September 9, 2010 and included the drilling of 4 small-diameter soil borings to maximum depths of approximately 40 feet. The approximate locations of the exploratory soil borings are depicted on the Geologic Map (see Figure 2). A detailed discussion of the field investigation and boring logs are presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to determine pertinent physical properties for engineering analyses. Appendix B presents a summary of the laboratory test results.

The recommendations presented herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions. References reviewed to prepare this report are provided in the *List of References* section.

If project details vary significantly from those described herein, Geocon should be contacted to determine the necessity for review and possible revision of this report.

2. SITE CONDITIONS AND PROJECT DESCRIPTION

The site is comprised of a 1.2-acre parcel currently occupied by the Walnut Creek Motor Lodge. Existing multi-family residential and commercial developments exist to the east and south, respectively. The site is bound by Ygnacio Valley Road to the north and North Main Street to the west. A gas station at the southeast corner of Ygnacio Valley Road and North Main Street is directly adjacent to the site (see Figure 2). The site is relatively flat with surface drainage directed to storm drain inlets throughout the motel parking lot. The driveway entrance from North Main Street is several feet lower than the balance of the site. Based on site elevations presented in a topographic map prepared by Luk & Associates (the project civil engineer) there is approximately 5 feet of relief from the high point along the northern margin of the site (along Ygnacio Valley Road) to the western driveway entrance at North

Main Street. An electronic version of that topographic map is used as the basis for Figure 2. A swimming pool with a maximum depth of approximately 6 feet below ground surface is located in the central portion of the motel property.

We understand that a 125-unit, residential apartment complex is planned and will generally consist of two levels of podium parking (one at grade, one below grade) and two to four levels of residential units above the podium. Preliminary site plans and elevation drawings dated September 24, 2010 and prepared by the LPAS Architecture + Design indicate the overall structure height may be up to 50 feet in the eastern portion of the complex; the same drawings indicate the underground parking may extend up to 15 feet below existing grade. Finalized grading and architectural plans were not available for review, but we anticipate site grading will be minimal with the exception of the excavation for the underground parking.

Structural plans were not available at the time this report was published. We have assumed that isolated column loads will be on the order of 300 kips or less (dead + live load) and wall loads will be 10 kips per foot or less. If project details differ from those described herein, we should be contacted to review the applicability of the conclusions and recommendations presented later in this report.

3. GEOLOGIC SETTING

Walnut Creek is located within the Coast Range Geomorphic Province of California, which is characterized by a series of northwest trending mountains and valleys along the north and central coast of California. Topography is controlled by the predominant geological structural trends within the Coast Range that generally consist of northwest trending synclines, anticlines and faulted blocks. The dominant structure is a result of both active northwest trending strike-slip faulting, associated with the San Andreas Fault system, and east-west compression within the province.

The San Andreas Fault (SAF) is a major right-lateral strike-slip fault that extends from the Gulf of California in Mexico to Cape Mendocino in northern California. The SAF forms a portion of the boundary between two tectonic plates on the surface of the earth. To the west of the SAF is the Pacific Plate, which moves north relative to the North American Plate, located east of the fault. In the San Francisco Bay Area, movement across this plate boundary is concentrated on the SAF and also distributed, to a lesser extent, across a number of other faults including the Hayward, Calaveras and Rodgers Creek faults, among others. Together, these faults are referred to as the SAF system. Faulting and seismicity are discussed in more detail in the following section.

Basement rock west of the SAF is generally granitic, while to the east it consists of a chaotic mixture of highly deformed marine sedimentary, submarine volcanic and metamorphic rocks of the Franciscan Complex. Both are typically Jurassic to Cretaceous in age (205 to 65 million years old). Overlying the basement rocks are Cretaceous (about 140 to 65 million years old) marine, as well as Tertiary (about 65 to 1.6 million year old) marine and non-marine sedimentary rocks with some continental volcanic rock. These Cretaceous and Tertiary rocks have typically been extensively folded and faulted largely as a result of movement along the SAF system, which has been ongoing for about the last 25 million years,

and regional compression during the last about 4 million years. The inland valleys, as well as the structural depression within which San Francisco Bay is located, are filled with unconsolidated to semi-consolidated deposits of Quaternary age (about the last 1.6 million years). Continental deposits (alluvium) consist of unconsolidated to semi-consolidated sand, silt, clay and gravel, while the bay deposits typically consist of soft organic-rich silt and clay (bay mud) or sand.

Regional geologic mapping by the California Geological Survey (CGS) indicates the site is near the northwestern end of a large syncline structure that is characterized by Pliocene and Pleistocene deposits in the valley and Teritiary-aged sedimentary and volcanic rock on the flanks.

4. GEOLOGIC HAZARDS

4.1 Faulting and Seismicity

Geologists and seismologists recognize the San Francisco Bay Area as one of the most active seismic regions in the United States. The significant earthquakes that occur in the Bay Area are associated with crustal movements along well-defined active fault zones that trend in a northwesterly direction.

The site and the entire San Francisco Bay Area are seismically dominated by the presence of the active San Andreas Fault System. In the theory of plate tectonics, the San Andreas Fault System is a transform fault that forms the boundary between the northward moving Pacific Plate (west of the fault) and the southward moving North American Plate (east of the fault). In the Bay Area, the movement is distributed across a complex system of strike-slip, right lateral parallel and subparallel faults, which include the San Andreas, Hayward and Calaveras faults, among others.

The site is not located within a State of California Earthquake Fault Zone. A review of the referenced geologic materials and our knowledge of the general area indicate that the site is not underlain by active, potentially active, or inactive faults. CGS defines an active fault as a fault that shows evidence for activity within the last 11,000 years. A potentially active fault is generally defined as a fault that shows evidence of displacement between 11,000 and 1.6 million years ago.

Geologic mapping by CGS indicates the site is approximately 3½ miles west-southwest of the active Concord Fault. The Concord Fault and numerous other faults in the Bay Area (Calaveras Fault, Hayward, San Andreas, etc.) are sources of potential ground motion. However, earthquakes that might occur on other faults within northern and central California area are also potential generators of significant ground motion at the site.

Web-based mapping of Quaternary Faults by the United States Geological Survey (USGS)/CGS indicates the potentially active Franklin Fault is located approximately ½ mile west-southwest of the site. It has been reported that an investigation of the Franklin Fault in the late 1990s identified offset within 31,000-year-old alluvium.

It should be noted that the seismic safety element within the *2005 to 2020 Contra Costa General Plan*, which is based on preliminary mapping by the USGS (Graymer, et al; 1994) indicates a potential strike-slip and normal fault and blind thrust fault within several hundred feet west and east of the site, respectively. A web-based version of that same preliminary USGS mapping indicates a "concealed" or "concealed and uncertain" fault is present in the immediate site vicinity. However, the aforementioned faults shown on the 1994 study are not included in more recent USGS publications by the same author (Graymer). Other referenced sources also do not indicate the presence of faults in the immediate site vicinity; those sources generally corroborate the sites proximity and distance to the Concord Fault and Franklin Fault as described above.

4.2 Surface Fault Rupture

As discussed above, the site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

4.3 Liquefaction Potential

Liquefaction involves a sudden loss in strength of saturated, cohesionless soils that are subject to ground vibration and results in temporary transformation of the soil to a fluid mass. If the liquefying layer is near the surface, the effects are much like that of quicksand for any structure located on it. If the layer is deeper in the subsurface, it may provide a sliding surface for the material above it.

Web-based mapping available by the USGS indicates the subject site possesses a "very low" susceptibility to liquefaction. The interactive mapping was the result of a cooperative project between the USGS and the CGS and is based on information presented in USGS Open File Report Nos. 2006-1037 and 00-444.

Based on aforementioned mapping, the dense nature of the alluvial materials that underlie the site and our experience in the area, the potential for liquefaction occurring with the site soils is considered to be low.

4.4 Landslides

There are no known landslides near the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

4.5 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

5. SOIL AND GROUNDWATER CONDITIONS

5.1 Undocumented Fill (Qudf)

The western margin of the site is mantled by a layer of undocumented fill soils presumably placed during site development for the existing motel facility. As observed in Boring B-1, the undocumented fill soils are approximately 5 feet thick and comprised of silty to sandy clay with gravel. The fill soils are generally moist and medium stiff. Based on the results of our laboratory testing, the undocumented fill possesses a "moderate" to "high" expansion potential.

5.2 Alluvium (Qal)

The site is underlain by alluvial deposits consisting of silty to sandy clay, fine sandy silts, and silty to clayey sands. The alluvial materials are primarily damp to moist with relative densities ranging from stiff to very stiff (fine-grained materials) and loose to dense (coarse-grained materials). We encountered alluvium in our soil borings to the maximum depth explored – approximately 40 feet below the existing ground surface. The alluvium was encountered beneath the undocumented fill at the western margin of the site and below the existing surface improvements in Borings B-2 through B-4.

USGS/CGS geologic mapping indicates the site is in an area of both early-Quaternary alluvium and late-Tertiary to early-Quaternary sediments. Sources vary on the lateral surficial extent of those materials in the subject area of Walnut Creek. Alluvial soils at the site may be comprised of materials from one or both units. For the purposes of this report, we have not made a distinction between the two units and will refer to both as Quaternary-aged alluvium.

5.3 Groundwater

Groundwater was encountered in Boring B-1 at an approximate depth of 38½ feet below existing ground surface. Actual groundwater levels will fluctuate with variations in rainfall, temperature and other factors and may be higher or lower than observed during our study.

5.4 Soil Corrosion Potential

We performed a corrosion potential screening by performing laboratory testing on representative samples of the subgrade materials. The laboratory test results and published screening levels are presented in Appendix B.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 General

6.1.1 It is our opinion that neither soil nor geologic conditions were encountered during the investigation that would preclude the project provided the recommendations presented herein are followed and implemented during design and construction.

6.1.2 Based on the observed site soil conditions and the assumed structural loading, we anticipate that a conventional shallow foundation system (spread column and strip footings) can be used to support the apartment complex.

6.1.3 A primary geotechnical consideration at the site is the presence of undocumented fill soils along the western margin. However, preliminary plans indicate the subterranean parking will extend up to 15 feet below existing grade (up to approximately 10 feet below existing grade at the portion of the project that fronts North Main Street. As such, we expect that excavation to construct the parking levels will remove most or all of the undocumented fill soils.

6.1.4 The native site soils, if relatively free of organics and other deleterious materials, may be used as engineered fill. The aforementioned undocumented fill materials should be removed from the site due to their moderate to high expansion potential.

6.1.5 All references to relative compaction and optimum moisture content in this report are based on ASTM D 1557 (latest edition).

6.1.6 All structural fill (including scarified ground surfaces and backfill) should be placed in layers no thicker than will allow for adequate bonding and compaction (typically 8 to 12 inches). Fill soils should be placed, moisture conditioned to near to slightly above optimum moisture content, and compacted to 90 percent relative compaction. In instances where structural fill will be placed within a 1:1 plane extended down and outward from any foundation bearing surface, the minimum relative compaction shall be 95 percent. Fill areas with in-place density tests showing moisture contents notably less than optimum moisture content as recommended will require additional moisture conditioning prior to placing additional fill.

6.1.7 Groundwater was encountered at a depth of approximately 38½ feet in Boring B-1. Since proposed excavations for the underground parking will be on the order of 15 feet or less, groundwater is not anticipated to adversely impact development of the project. Actual groundwater levels will fluctuate with variations in rainfall, temperature and other factors and may be higher or lower than observed during our study.

6.2 Seismic Design Criteria

6.2.1 The following table summarizes site-specific design criteria obtained from the 2007 California Building Code (CBC) Chapter 16 – Structural Design, Section 1613 – Earthquake Loads. The values were derived using the computer application *Seismic Hazard Curves and Uniform Hazard Response Spectra*, provided by the USGS.

TABLE 6.2
CBC SEISMIC DESIGN PARAMETERS

Parameter	Value	CBC-07 Reference
Site Class	D	Table 1613.5.2
Spectral Response – (0.2 sec), S_S	1.5g	Figure 1613.5(3)
Spectral Response – (1 sec), S_1	0.6g	Figure 1613.5(4)
Site Coefficient, F_a	1.0	Table 1613.5.3(1)
Site Coefficient, F_v	1.5	Table 1613.5.3(2)
Maximum Considered Earthquake Spectral Response Acceleration (0.2 sec), S_{MS}	1.5g	Section 1613.5.3 (Eq. 16-37)
Maximum Considered Earthquake Spectral Response Acceleration – (1 sec), S_{M1}	0.9g	Section 1613.5.3 (Eq. 16-38)
5% Damped Design Spectral Response Acceleration (0.2 sec), S_{DS}	1.0g	Section 1613.5.4 (Eq. 16-39)
5% Damped Design Spectral Response Acceleration (1 sec), S_{D1}	0.6g	Section 1613.5.4 (Eq. 16-40)

6.2.2 Conformance to the criteria in the above table for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

6.3 Soil and Excavation Characteristics

6.3.1 The in-situ soils can be excavated with moderate to heavy effort using conventional excavation equipment.

6.3.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable OSHA rules and regulations to maintain safety and maintain the stability of adjacent existing improvements.

6.3.3 All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load. Penetrations below this 1:1 projection will require special excavation measures such as sloping and possibly shoring.

6.3.4 Some of the site soils encountered are considered to be "expansive" (Expansion Index [EI] greater than 20) as defined by 2007 California Building Code (CBC) Section 1802.3.2. Our laboratory testing indicates the clay soils within the undocumented fill possess a "moderate" expansion potential (EI less than 90). However, excavation for the underground parking component should effectively remove the undocumented fill materials. The recommendations in this report assume that foundations and slab-on-grade for the complex will derive support in the underlying alluvial materials.

6.3.5 Water-soluble sulfate test results indicate the majority of on-site materials have a "negligible" potential for sulfate attack on normal portland cement concrete (PCC) as defined by Section 1904.3 of the 2006 International Building Code and Chapter 318, Section 4.3 of the 2006 ACI Manual of Concrete Practice. ACI does not set forth any particular recommendations for "negligible" sulfate exposure.

6.4 Grading

6.4.1 All earthwork should be observed and all fills tested for recommended compaction and moisture content by representatives of Geocon Consultants (Geocon).

6.4.2 A preconstruction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance. Special soil handling requirements can be discussed at that time.

6.4.3 The alluvial soils at the site are suitable for re-use as engineered fill provided any encountered deleterious debris, such as wood and tree roots, or inert construction debris in excess of 6 inches in diameter is screened from the fill and properly disposed of offsite. Deleterious debris must not be mixed with the fill soils. Asphalt and concrete should not be mixed with the fill soils unless approved by Geocon. If any existing underground improvements are present below the proposed depth of excavation for the underground parking, we should be contacted to provide specific recommendations.

6.4.4 After demolition of the existing structures, grading should commence with the removal of all existing improvements from the area to be graded. The areas to receive compacted fill shall be stripped of all vegetation, existing fill, and soft or disturbed soils.

6.4.5 All imported fill or structural backfill materials should be observed, tested and approved by Geocon Consultants prior to importing to the site. Imported material, if required, and structural backfill should meet the following criteria:

- Expansion Index less than 50
- Free of materials larger than 6 inches in nominal diameter
- Free of vegetation, organics or other deleterious matter
- Greater than 20 percent (by weight) passing the No. 200 sieve.
- Reasonably well-graded from coarse to fine.

6.4.6 Some portions of the alluvial materials that underlie the site will likely meet the criteria listed above; other portions may not. Contractors should be advised that excavated materials may require mixing with other soils to achieve conformance to the criteria in Section 6.4.5.

6.4.7 Environmental characteristics and corrosion potential of any import soil materials should also be considered.

6.5 Excavation Slopes and Shoring

6.5.1 Permanent cut and fill slopes should be inclined no steeper than 2:1 (horizontal:vertical). Slopes should be protected against surface erosion. Consideration should be given to the use of jute mesh or other surface treatment to minimize erosion until adequate vegetation can be established.

6.5.2 Project design was evolving at the time of this report. It is not known if excavation sloping and shoring measures will be required. The necessity for sloping and shoring measures will be largely governed by the depth of excavation and its proximity to existing improvements.

6.5.3 Deep excavations and cuts may result in the settlement of the surrounding ground surface. Such settlement may be sufficient to cause damage or distress to buildings, retaining walls, utilities, services, or other structures located near the excavation.

6.5.4 The native alluviual materials and undocumented fill soils can be considered a Type B soil in accordance with OSHA guidelines. Temporary slopes in the undocumented fill or alluvial soils may be excavated no steeper than 1:1 (horizontal:vertical) to a height of 15 feet without shoring. The top of the excavation should be a minimum of 15 feet from the edge of existing improvements. Excavations steeper than those recommended or closer than 15 feet from an

existing improvement should be shored in accordance with applicable OSHA codes and regulations.

6.5.5 Shoring for excavations will be required when the recommended maximum excavation slope inclination cannot be maintained, particularly in areas adjacent to existing improvements, including structures and roadways.

6.5.6 The design of temporary shoring is governed by soil and groundwater conditions, and by the depth and width of the excavated area. Continuous support of the excavation face can be provided by a system of soldier piles and wood lagging. Although not expected, excavations exceeding 15 feet may require tieback anchors to provide additional wall restraint.

6.5.7 Temporary cantilever shoring should be designed for an active soil pressure equivalent to the pressure exerted by a fluid density of 27 pcf. Any additional lateral earth pressure due to the surcharging effects of adjacent structures and/or traffic loads should be considered in the design of the shoring system.

6.5.8 Passive soil pressure resistance for embedded portions of soldier piles can be based upon an equivalent passive soil fluid weight of 300 pcf. The passive resistance can be assumed to act over a width of three pile diameters. The project structural engineer should determine the actual embedment depth.

6.5.9 It is essential that any shoring system allow very limited amounts of lateral displacement. Earth pressures acting on a lagging wall can result in the movement of the shoring toward the excavation and result in ground subsidence outside of the excavation. For these reasons, we recommend that horizontal movements of the shoring wall be accurately monitored and recorded during excavation and anchor construction. Survey points should be established at both the top and at least one intermediate point between the top of the pile and the base of the excavation on each soldier pile. These points should be monitored on a regular basis during excavation work. The shoring system should be designed to limit horizontal soldier pile movement to less than ½ inch.

6.5.10 Lagging should keep pace with excavation and anchor construction. We recommend that the excavation not be advanced deeper than 3 feet below the bottom of lagging at any time. These unlagged gaps of up to 3 feet should only be allowed to stand for short periods of time in order to decrease the probability of soil sloughing and caving. Backfilling should be conducted when necessary between the back of lagging and excavation sidewalls to reduce sloughing in this zone.

6.5.11 The condition of existing buildings, streets, sidewalks, and other structures around the perimeter of the planned excavation should be documented prior to the start of shoring and

excavation work. Special attention should be given to documenting existing cracks or other indications of differential settlement within these adjacent structures, pavements and other improvements. In addition, monitoring points should be established indicating location and elevation around the excavation and upon existing buildings. These points should be monitored on a regular basis during construction.

6.6 Underground Utilities

6.6.1 Underground utility trenches within structural areas should be backfilled with properly compacted material. The material excavated from the trenches should be adequate for use as backfill provided it does not contain deleterious matter, vegetation or rock larger than six inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding eight inches and should be compacted to minimum 90% relative compaction near to slightly above over optimum moisture content.

6.6.2 Bedding and pipe zone backfill should extend from the bottom of the trench excavations to a minimum of 6 inches above the crown of the pipe. Pipe bedding material should consist of ¾-inch crushed aggregate or similar open-graded material. Bedding and backfill should also conform to the requirements of the governing utility agency.

6.7 Foundation Recommendations

6.7.1 The site is suitable for use of conventional foundations consisting of continuous strip or isolated spread footings founded on competent native alluvial materials. The following recommendations are based on the assumption that the prevailing soils within 5 feet of finish grade will consist of low expansive materials (Expansion Index less than 50). The presence of moderately to highly expansive soils may require modification to the foundation recommendations presented herein.

6.7.2 It is recommended that conventional continuous footings have a minimum embedment depth of 24 inches below lowest adjacent pad grade. The footings should be at least 12 inches wide. Spread footings should be at least 3 feet square and founded at least 24 inches below lowest adjacent pad grade.

6.7.3 Footings proportioned as recommended may be designed for an allowable soil bearing pressure of 3,500 pounds per square foot (psf). This soil bearing pressure may be increased by 300 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing of 4,000 psf without further review.

6.7.4 Provided the site is graded in accordance with the recommendations of this report and foundations constructed as described herein, a maximum total settlement of ¾ inch and a maximum differential settlement of ½ inch are estimated.

6.7.5 The allowable bearing pressures recommended for continuous strip footings and isolated spread footings are for dead + live loads may be increased by up to one-third for transient loads due to wind or seismic forces.

6.7.6 The allowable passive pressure used to resist lateral movement of the footings may be assumed to be equal to a fluid weighing 300 pounds per cubic foot (pcf). The allowable coefficient of friction to resist sliding is 0.30 for concrete against soil. Combined passive resistance and friction may be utilized for design provided that the frictional resistance is reduced by 50%.

6.7.7 Minimum reinforcement for continuous footings should consist of four No. 5 steel reinforcing bars; two placed near the top of the footing and two near the bottom. Reinforcement for spread footings should be designed by the project structural engineer.

6.7.8 The foundation and slab-on-grade dimensions and minimum reinforcement recommendations presented herein are based upon soil conditions only and are not intended to be used in lieu of those required for structural purposes.

6.7.9 Footings should not be located within 7 feet of the tops of slopes. Footings that must be located within this zone should be extended in depth such that the outer bottom edge of the footing is at least 7 feet horizontally from the face of the finished slope. Further, although such a condition is not anticipated, footings situated near the top of slopes should be reviewed by Geocon for additional recommendations.

6.7.10 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom edge of the footing.

6.7.11 No special subgrade presaturation is deemed necessary prior to placement of concrete. The slab and foundation subgrade should be sprinkled as necessary to maintain a moist condition as would be expected in any concrete placement.

6.8 Concrete Slabs-on-Grade

6.8.1 Concrete slabs-on-grade subject to vehicle loading should be designed in accordance with the recommendations in Section 6.10 of this report.

6.8.2 Concrete slabs-on-grade for structures, not subject to vehicle loading, should be a minimum of 5 inches thick and minimum slab reinforcement should consist of No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions. Steel reinforcing should be positioned vertically near the slab midpoint.

6.8.3 Interior slabs should be underlain by 4 inches of ½-inch or ¾-inch crushed rock with no more than 5 percent passing the No. 200 sieve to serve as a capillary break.

6.8.4 Exterior slabs, not subject to traffic loads, should be at least 4 inches thick and reinforced with No. 3 steel reinforcing bars placed 24 inches on center in both horizontal directions, positioned near the slab midpoint. Prior to construction of slabs, the subgrade should be moisture conditioned to near optimum moisture content and properly compacted.

6.8.5 Crack control joints should be spaced at intervals not greater than 8 feet and should be constructed using saw-cuts or other methods as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by the project structural engineer.

6.8.6 The recommendations of this report are intended to reduce the potential for cracking of slabs due to settlement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

6.9 Moisture Protection Considerations

6.9.1 Migration of moisture through concrete slabs or moisture otherwise released from slabs is not a geotechnical issue. However, for the convenience of the owner, we are providing the following general suggestions for consideration by the owner, architect, structural engineer, and contractor. The suggested procedures may reduce the potential for moisture-related floor covering failures on concrete slabs-on-grade, but moisture problems may still occur even if the procedures are followed. If more detailed recommendations are desired, we recommend consulting a specialist in this field.

6.9.2 A minimum 10-mil-thick vapor barrier meeting ASTM E 1745-09 Class C requirements may be placed directly below the slab, without a sand cushion. To reduce the potential for punctures, a higher quality vapor barrier (15 mil, Class A or B) may be used. The vapor barrier, if used, should extend to the edges of the slab, and should be sealed at all seams and penetrations.

6.9.3 The concrete water/cement ratio should be as low as possible. The water/cement ratio should not exceed 0.45 for concrete placed directly on the vapor barrier. Midrange plasticizers could be used to facilitate concrete placement and workability.

6.9.4 Proper finishing, curing, and moisture vapor emission testing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

6.10 Pavement Recommendations

6.10.1 The upper 12 inches of paving subgrade should be scarified and properly compacted to at least 95 percent relative compaction near to slightly above optimum moisture content.

6.10.2 Due to the nature of the project, we do not expect that flexible pavement sections will be utilized. Flexible pavement recommendation are not presented herein but can be provided upon request.

6.10.3 Unless specifically designed and evaluated by the project structural engineer, where concrete paving will be utilized for support of vehicles, it is recommended that the concrete be a minimum of 6 inches thick and reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions. Concrete paving supporting vehicular traffic should be underlain by a minimum of 4 inches of Class 2 Aggregate Base (or crushed rock in interior applications) and a properly compacted subgrade. Class 2 Aggregate Base should conform to Section 26 of the Caltrans standard specifications. The upper 12 inches of subgrade soils and all aggregate base materials should be compacted to at least 95 percent relative compaction.

6.10.4 The performance of pavements is highly dependent upon providing positive surface drainage away from the edge of pavements. Ponding of water on or adjacent to the pavement will likely result in saturation of the subgrade materials and subsequent cracking, subsidence and pavement distress. If planters are planned adjacent to paving, it is recommended that the perimeter curb be extended at least 12 inches below the bottom of the aggregate base to minimize the introduction of water beneath the paving.

6.10.5 In general, we recommend that concrete pavements be designed, constructed and maintained in accordance with industry standards such as those provided by the American Concrete Pavement Association.

6.11 Retaining Wall Design

6.11.1 Lateral earth pressures may be used in the design of retaining walls and buried structures. Lateral earth pressures against these facilities may be assumed to be equal to the pressure exerted by an equivalent fluid. The unit weight of the equivalent fluid depends on the design conditions. Table 6.11 summarizes the weights of the equivalent fluid based on the different design conditions.

TABLE 6.11
RECOMMENDED LATERAL EARTH PRESSURES

Condition	Equivalent Fluid Density
Active	40 pcf
At-Rest	55 pcf

6.11.2 Unrestrained walls should be designed using the active case. Unrestrained walls are those that are allowed to rotate more than 0.001H (where H is the height of the wall). Walls restrained from movement should be designed using the at-rest case. The above soil pressures assume level backfill under drained conditions within an area bounded by the wall and a 1:1 plane extending upward from the base of the wall. Unless project-specific loading information is provided by the structural engineer, where vehicle loads are expected atop the wall backfill, an additional uniform surcharge pressure equivalent to 2 feet of backfill soil should be used for design. Retaining wall foundations should be designed in accordance with the recommendations in Section 6.7.

6.11.3 Retaining walls greater than 2 feet tall (retained height) should be provided with a drainage system adequate to prevent the buildup of hydrostatic forces and should be waterproofed as required by the project architect. Positive drainage for retaining walls should consist of a vertical layer of permeable material positioned between the retaining wall and the soil backfill. The permeable material may be composed of a composite drainage geosynthetic or a natural permeable material such as crushed gravel at least 12 inches thick and capped with at least 12 inches of native soil. A geosynthetic filter fabric should be placed between the gravel and the soil backfill. Provisions for removal of collected water should be provided for either system by installing a perforated drainage pipe along the bottom of the permeable material which leads to suitable drainage facilities.

6.12 Temporary Excavations

6.12.1 Excavations on the order of 4 feet in vertical height within fine-grained native alluvium should remain near vertical.

6.12.2 Excavations that expose relatively clean sands (such as those encountered below the clayey alluvium in Boring B-1 may be prone to sloughing and caving and special provisions may be necessary.

6.12.3 Excavations greater than 4 feet in height or those that are surcharged by adjacent traffic or structures will require sloping or shoring measures in order to provide a stable excavation.

6.12.4 It is the contractor's responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements.

6.13 Surface Drainage

6.13.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change to important engineering properties. Proper drainage should be maintained at all times.

6.13.2 All site drainage should be collected and transferred to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. The proposed structures should be provided with roof gutters. Discharge from downspouts, roof drains and scuppers not permitted onto unprotected soils within five feet of the building perimeter. Planters which are located adjacent to foundations should be sealed or properly drained to prevent moisture intrusion into the materials providing foundation support. Landscape irrigation within five feet of the building perimeter footings should be kept to a minimum to just support vegetative life.

6.13.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The building pad and pavement areas should be fine graded such that water is not allowed to pond.

6.13.4 Landscaping planters immediately adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. Either a subdrain, which collects excess irrigation water and transmits it to drainage structures, or an impervious above-grade planter boxes should be used. In addition, where landscaping is planned adjacent to the pavement, it is recommended that consideration be given to providing a cutoff wall along the edge of the pavement that extends at least 12 inches below the base material.

7. FURTHER GEOTECHNICAL SERVICES

7.1 Plan and Specification Review

7.1.1 We should review the improvement plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

7.2 Testing and Observation Services

7.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others interpretation of our recommendations, and therefore the future performance of the project.

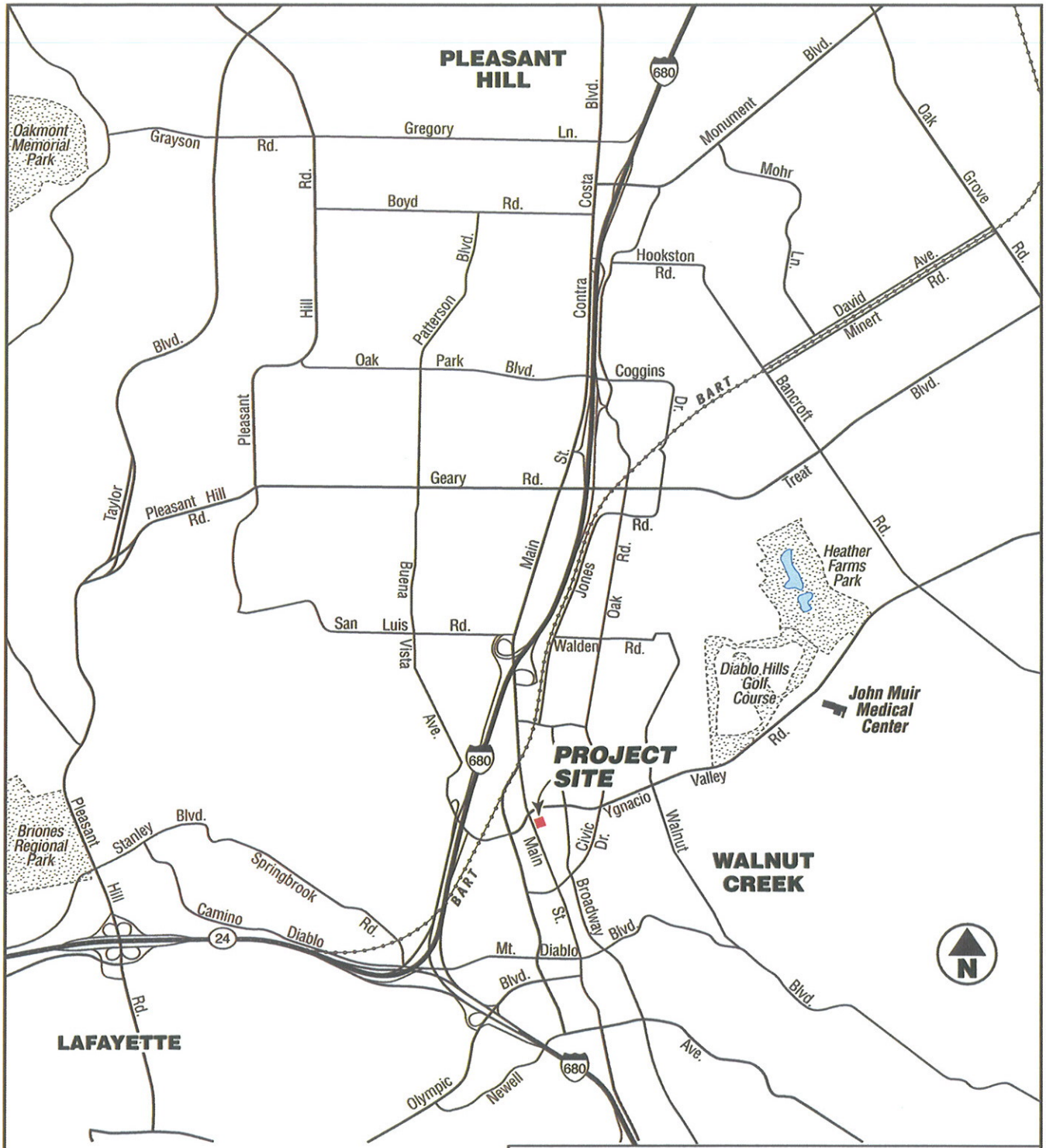
LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Consultants, Inc. should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon Consultants, Inc.

2. This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

4. Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices used in the site area at this time. No warranty is provided, express or implied.



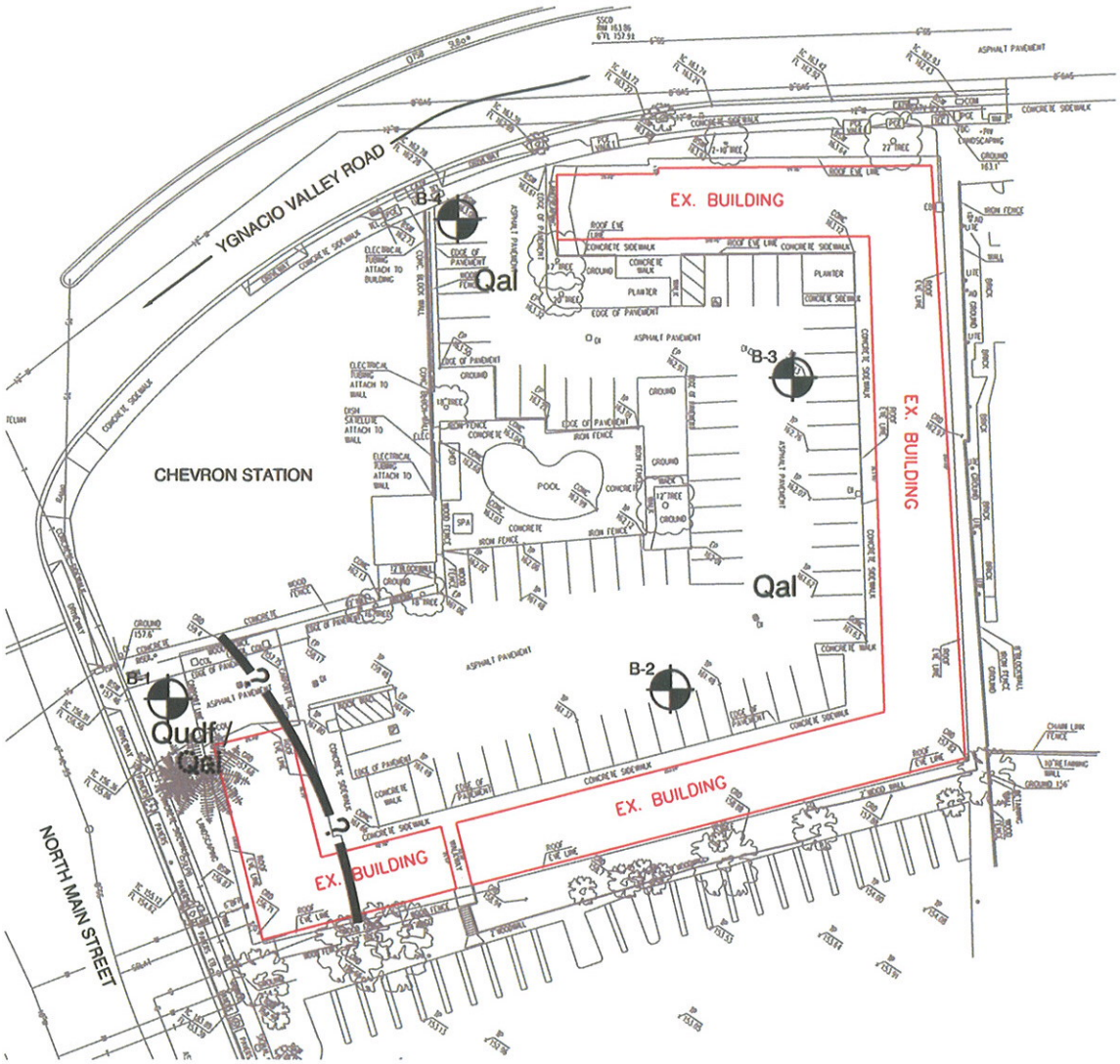
GEOCON
CONSULTANTS, INC.
6671 BRISA STREET – LIVERMORE, CA 94550
PHONE 925.371.5900 – FAX 925.371.5915

Walnut Creek Apartments

1960 North Main Street
Walnut Creek, California

VICINITY MAP

E8547-06-01	January 2011	Figure 1



GEOLOGIC MAP

GEOCON

GEOTECHNICAL CONSULTANTS
6671 BRISA STREET, LIVERMORE, CALIFORNIA 94550
PHONE 925.371.5900 FAX 925.371.5915

WALNUT CREEK APARTMENTS
1960 NORTH MAIN STREET
WALNUT CREEK, CALIFORNIA

SR / SR		DSK/GTYPD	DATE: JANUARY 2011	PROJECT NO. E8547-06-01	FIG. 2

APPENDIX A

FIELD INVESTIGATION

Fieldwork for our investigation included a site visit, subsurface exploration, and soil sampling. The locations of the exploratory borings are shown on the Geologic Map, Figure 2. Boring logs are presented in figures following the text in the appendix. Borings were located in the field using a measuring tape and existing reference points. Therefore, actual boring locations may deviate slightly.

Our subsurface exploration was performed on September 9, 2010, and included the drilling and sampling of existing soils with a Mobile B-61 drill rig equipped with 8-inch hollow-stem augers. Relatively undisturbed samples were obtained during our subsurface exploration using a California Sampler. Disturbed samples were obtained using a Standard Penetration Test (SPT) Sampler. Each sampler is composed of steel and is driven to obtain samples. The California Sampler has an inside diameter of 2.5 inches and an outside diameter of 3 inches. Up to 18 rings that are 2.4 inches in diameter and 1 inch in height are placed inside the sampler. Ring samples at appropriate intervals were collected and classified by our engineer, retained in moisture-tight containers, and transported to the laboratory for testing and further classification. The SPT sampler has a 2.0-inch outside diameter and 1.4-inch inside diameter and was used without brass liners. Disturbed bulk samples of near-surface soils were also obtained from soil cuttings for laboratory testing. The applicable type of each sampling interval is noted on the exploratory boring logs.

The samplers were driven 18 inches into the bottom of the excavations with the use of a manual hammer raised and dropped free by the drill rig hydraulic system and extension rods. The samplers are connected to the extension rods and driven into the bottom of the excavation using a 140-pound hammer with a 30-inch drop. Blow counts are recorded for every 6 inches the sampler is driven. The penetration resistances shown on the boring logs are shown in terms of blows per foot. The values indicated on the boring logs are the sum of the blow counts for the lower 12 inches of the driven sampler. If the sampler was not driven for 18 inches, an approximate value is calculated in terms of blows per foot or the final 6-inch interval is reported. These values are not to be taken as N-values; adjustments have not been applied.

The soil conditions encountered in the borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D 2488). The logs of the exploratory borings are presented on Figures A-1 through A-4. The logs depict the various soil types encountered and indicate the depths at which samples were obtained.

A geotechnical boring construction permit was issued for the exploratory excavations by the Contra Costa County Environmental Health Division and is included after the figures in this appendix.

PROJECT NO. E8547-06-01

BORING B 1

ELEV. (MSL.) 157'± DATE COMPLETED 09-09-2010

EQUIPMENT MOBILE B-61 BY: S. RODACKER

DEPTH IN FEET	SAMPLE NO.	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0			4"± ASPHALT			
			8"± AGGREGATE BASE			
2	B1-3-3.5	CL	**UNDOCUMENTED FILL (Qudf)** Medium stiff, moist, dark brown, mottled, light brown and gray, Silty to Sandy CLAY with <½" subangular gravel, moderate to high plasticity pp=4	12		
4	B1-2-5		-Rootlets, trace organics			
6	B1-6-6.5	CL	**ALLUVIUM (Qal)** Stiff, moist, olive-brown, with rust mottling, Silty CLAY, low to moderate plasticity, with gypsum veins pp=4	32		22.1
8						
10	B1-9.5-10		-Same	33	100.4	23.7
12		SM	Medium dense, moist, olive to medium brown, fine SAND with silt			
14	B1-14-15			17		
16						
18						
20	B1-19-20		-Same, fine to coarse grained, with <½" subangular gravel	26		
22						
24	B1-24-25	SM	Medium dense, damp, blue-gray, Silty, fine SAND with lightly cemented chunks	20		
26		SC	Moist, blue-gray, Clayey, fine SAND			
28	B1-29-29.5	SM	Loose, damp, medium to dark gray, Silty SAND with sandstone chunks	13		
30						
32						

E8547-06-01.GPJ

Figure A-1,
Log of Boring B 1, Page 1 of 2

SAMPLE SYMBOLS

- ☐ ... SAMPLING UNSUCCESSFUL
- ▮ ... STANDARD PENETRATION TEST
- ■ ... DRIVE SAMPLE (UNDISTURBED)
- ⊠ ... DISTURBED OR BAG SAMPLE
- ◪ ... CHUNK SAMPLE
- ▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. E8547-06-01

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	**BORING B 1** ELEV. (MSL.) **157'±** DATE COMPLETED **09-09-2010** EQUIPMENT **MOBILE B-61** BY: **S. RODACKER**	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					MATERIAL DESCRIPTION			
34	B1-34-35			SM	-Same, medium dense	19		
36								
38	B1-39-40		▼	GM	Medium dense, wet, medium brown, Silty to Sandy GRAVEL, <1" subangular gravel	22		
40					BORING TERMINATED AT 40 FEET Groundwater measured in auger at 38½' Backfilled with grout via tremie pipe			

Figure A-1,
Log of Boring B 1, Page 2 of 2

E8547-06-01.GPJ

SAMPLE SYMBOLS

- ☐ ... SAMPLING UNSUCCESSFUL
- ▨ ... DISTURBED OR BAG SAMPLE
- ◧ ... STANDARD PENETRATION TEST
- ◥ ... CHUNK SAMPLE
- ■ ... DRIVE SAMPLE (UNDISTURBED)
- ▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. E8547-06-01

BORING B 2

ELEV. (MSL.) 157'± DATE COMPLETED 09-09-2010

EQUIPMENT MOBILE B-61 BY: S. RODACKER

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					4"± ASPHALT			
				CL	4"± AGGREGATE BASE			
2	B2-3-3.5				**ALLUVIUM (Qal)** Stiff, moist, olive-brown, mottled rust, Silty CLAY, low to moderate plasticity (CL) pp=3.5	25		
4								
6	B2-6-6.5				-Same with trace sand and fine gravel	17	93.6	28.1
8								
10	B2-9.5-10				-Same, more fine sand	14	92.8	25.9
12								
14	B2-14.5-15			SM	Medium dense, damp to moist, olive-gray brown, Silty, fine SAND	31	96.4	11.4
16								
18								
20	B2-19-19.5				-Same, damp, lenses of medium to coarse sand, fine to coarse subangular gravel in shoe	29		
22								
24	B2-23.5-24.				-Same, rust mottling, some light to moderate cementation	50/6"		
					BORING TERMINATED AT 24.5 FEET Practical refusal No groundwater encountered Backfilled with grout			

Figure A-2,
Log of Boring B 2, Page 1 of 1

E8547-06-01.GPJ

SAMPLE SYMBOLS

- ☐ ... SAMPLING UNSUCCESSFUL
- ▮ ... STANDARD PENETRATION TEST
- ■ ... DRIVE SAMPLE (UNDISTURBED)
- ▩ ... DISTURBED OR BAG SAMPLE
- ◥ ... CHUNK SAMPLE
- ▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. E8547-06-01

BORING B 3

ELEV. (MSL.) 163'± DATE COMPLETED 09-09-2010

EQUIPMENT MOBILE B-61 BY: S. RODACKER

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					4"± ASPHALT			
				SM	3"± AGGREGATE BASE			
2	B3-3-3.5				**ALLUVIUM (Qal)** Medium dense, damp, light olive brown, Silty, fine SAND	38		
4								
6	B3-5.5-6.5				-Same, with rust mottling	23		
8								
	B3-9-10			ML	Very stiff, damp to moist, light olive-brown, fine Sandy SILT	19		
10								
12								
14	B3-14-15				-Same	29		
16								
18								
	B3-19.5-20			SM	Dense, damp to moist, medium brown, Silty, fine to coarse SAND with <½" subangular gravel	41		
20								
22								
24	B3-24-25				-Same, medium dense, olive brown, no coarse sand or gravel	26		
26								
				GM	Dense, damp, medium to dark brown, mottled rust, fine to coarse Sandy GRAVEL; <½" subangular gravel			
28	B3-29-29.5					40	127.0	3.3
				SM	Dense, moist, medium brown, fine to coarse SAND with trace silt			
					BORING TERMINATED AT 29.5 FEET No groundwater encountered Backfilled with grout			

Figure A-3,
Log of Boring B 3, Page 1 of 1

E8547-06-01.GPJ

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. E8547-06-01

BORING B 4

ELEV. (MSL.) 163'± DATE COMPLETED 09-09-2010

EQUIPMENT MOBILE B-61 BY: S. RODACKER

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					3"± ASPHALT			
				SM	6"± AGGREGATE BASE			
2	B4-3-3.5				**ALLUVIUM (Qal)** Medium dense, moist, light olive brown, mottled rust, Silty, fine SAND; trace clay and trace fine to medium gravel	31	97.4	26.4
4	B4-2-5							
6	B4-6-6.5				-Damp, fine to medium sand with trace silt	32		
8								
10	B4-9-10			ML	Very stiff, damp to moist, light olive brown, mottled rust, fine Sandy SILT with trace clay	17		
12								
14	B4-14.5-15			CL	Very stiff, moist, light olive brown, mottled medium brown and rust, Silty, fine Sandy CLAY (low to medium plasticity) pp>4.5 -Sandier veins within	39	94.8	29.4
16								
18				SM	Medium dense, damp, olive to grayish brown, fine to medium SAND with trace silt (SM)			
20	B4-19-20					25		
22								
24	B4-24-24.5				-Same, very dense, moist	53		
26								
28	B4-28-29.3				-Same, more silty with fine to coarse, subangular to angular gravel	81/3"		
					BORING TERMINATED AT 29.3 FEET Practical refusal No groundwater encountered Backfilled with grout			

Figure A-4,
Log of Boring B 4, Page 1 of 1

E8547-06-01.GPJ

SAMPLE SYMBOLS: ... SAMPLING UNSUCCESSFUL; ... STANDARD PENETRATION TEST; ... DRIVE SAMPLE (UNDISTURBED); ... DISTURBED OR BAG SAMPLE; ... CHUNK SAMPLE; ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

CONTRA COSTA
HEALTH SERVICES

CONTRA COSTA
ENVIRONMENTAL HEALTH DIVISION
2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org

Well Permit

WP0014649

PR Number:	41227	PE Number:	4301
Date Received:	31 AUG 10	Permit Number:	10B-1340

Permit Approved/Issued by: _____ Date Issued: 02 SEP 10 Date Expires: 02 MAR 11

Environmental Health Specialist

NEW WELL	(4) SOIL BORINGS	WELL ABANDONMENT	REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

Project Site Information

Site Address:	1960 N MAIN ST, WALNUT CREEK		
APN:	178-411-019	Lot/Parcel #:	
Subdivision #:		Minor Subdivision #:	

Driller / Consultant Information

Driller:	EXPLORATION GEOSERVICES	Contact Person:	
Phone #:	408-280-6822	FAX#:	408-356-8315
Consultant:	GEOCON CONSULTANTS	Contact Person:	SHANE RODACKER
Phone #:	925-371-5900	FAX#:	925-371-5915

Legal Owner Information

Legal Owner Name:	DAVID GREEN		
Owner Address:	P.O. BOX 868		
City/State/Zip:	WINTERS, CA 95694		
Phone #:	312-541-4200	Alternate Phone #:	

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 48 hours in advance (excluding weekends, holidays and Mandatory County Furlough Days) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.

Well drillers must posses a valid C-57 license and must have on file a performance bond of $5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

1. Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
2. Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
3. Other: _____

_____

Final Approval by: _____ Date: _____

(06/08)

APPENDIX B
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected samples were tested for maximum dry density and optimum moisture content, expansion, shear strength, unconfined compressive strength, grain size distribution, consolidation, and corrosion parameters. The results of the laboratory tests are summarized in tabular format below and the following figures.

TABLE I
SUMMARY OF LABORATORY MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D 1557

Sample No.	Description	Maximum Dry Density (pcf)	Optimum Moisture Content (% dry wt.)
1	Dark brown Silty to Sandy CLAY	125.3*	11.0*

*Values corrected for fine gravel fraction.

TABLE B-II
SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D 4829

Sample No.	Moisture Content		Dry Density* (pcf)	Expansion Index
	Before Test (%)	After Test (%)		
B1-2-5	11.1	24.9	103.8	83

*Before saturation

TABLE B-III
SUMMARY OF LABORATORY DIRECT SHEAR TEST RESULTS
ASTM D 3080

Sample No.	Dry Density (pcf)	Moisture Content (%)	Unit Cohesion (psf)	Angle of Shear Resistance (degrees)
B1-2-5	111.8*	23.6	760	23

*Sample remolded to approximately 90% of the laboratory maximum dry density.

TABLE B-IV
SUMMARY OF LABORATORY UNCONFINED COMPRESSIVE STRENGTH TEST RESULTS
ASTM D 2166

Sample No.	Dry Density (pcf)	Moisture Content (%)	Unconfined Compressive Stength (psf)	% Strain
B2-3-3.5	88.0	17.7	4780	8.2

TABLE B-V
SUMMARY OF CORROSION PARAMETERS
AASHTO T291 (CHLORIDE)
CALIFORNIA TEST NO. 643 (pH AND RESISTIVITY) AND 417 (SULFATE)

Sample No.	pH	Minimum Resistivity (ohm-cm)	Chloride (%)	Water-Soluble Sulfate (%)	Sulfate Exposure
B3-5-6 and B3-9-10	8.2	1,300	0.002	0.002	Negligible
B1-2-5	8.2	670	0.002	0.003	Negligible
B2-3-3.5	8.3	840	0.002	0.001	Negligible

*Caltrans considers a site corrosive to foundation elements if one or more of the following conditions exist for the representative soil samples at the site:

- The pH is equal to or less than 5.5.
- The resistivity is equal to or less than 1,000 ohm-cm.
- Chloride concentration is equal to or greater than 500 parts per million (ppm) or 0.05%.
- Sulfate concentration is equal to or greater than 2,000 ppm (0.2%)

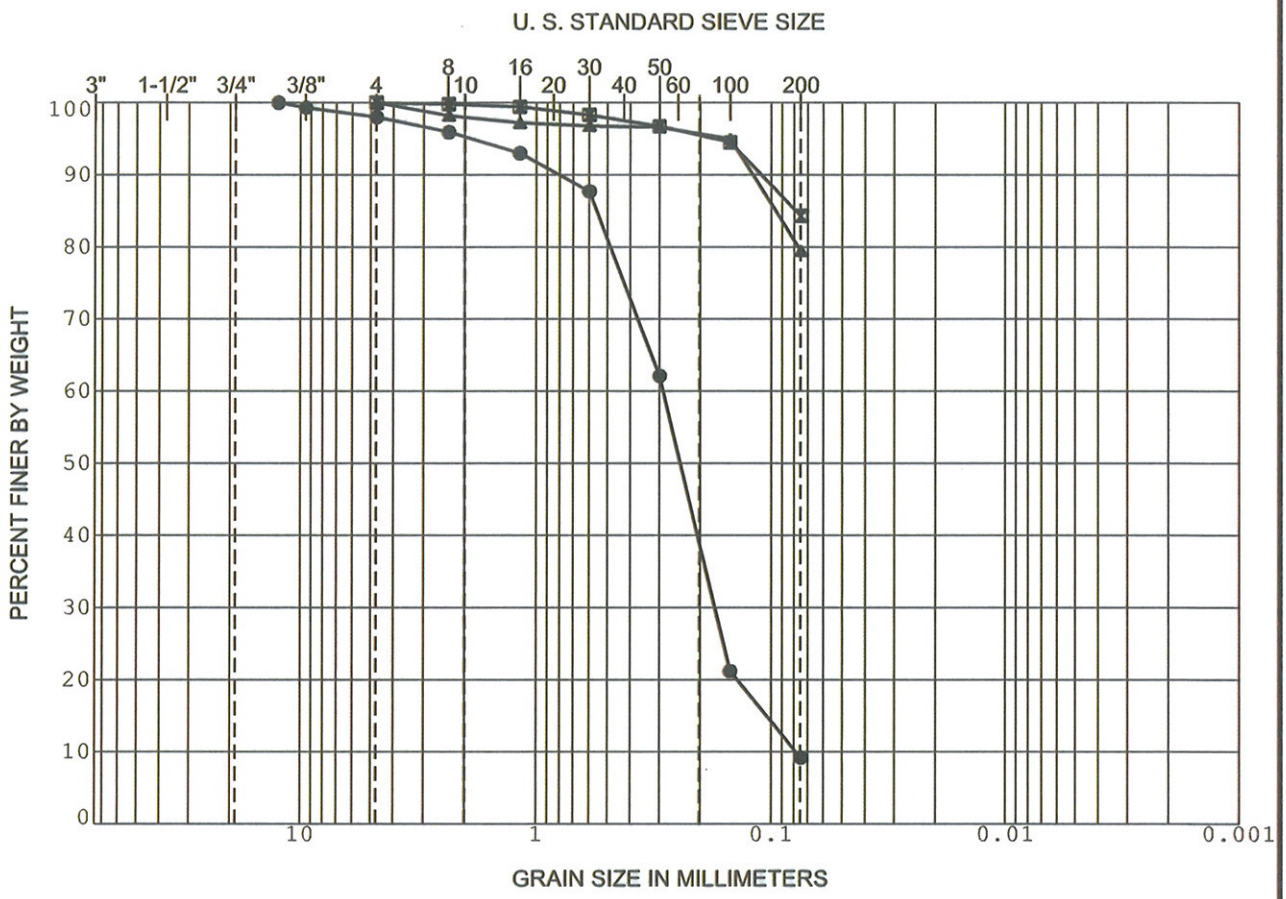
*According to the 2007 California Building Code Section 1904.3 which refers to American Concrete Institute 318 Section 4.3, Type II cement may be used where sulfate levels are below 2,000 ppm (0.2%)

TABLE B-VI
SUMMARY OF R-VALUE TEST RESULT
ASTM D 2844

Sample No.	Depth (feet)	Soil Description	R-Value
B1-2-5	2 to 5	Dark olive-brown, Sandy CLAY with trace silt	5

PROJECT NO. E8547-06-01

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



	SAMPLE	DEPTH (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
●	B1-14-15	13.5	(SP-SM) Poorly graded SAND with silt				
■	B3-9-10	8.5	(CL) Lean CLAY with sand				
▲	B4-9-10	8.5	(ML) SILT with sand				

GRADATION CURVE

WALNUT CREEK APARTMENTS
1960 NORTH MAIN STREET
WALNUT CREEK, CALIFORNIA

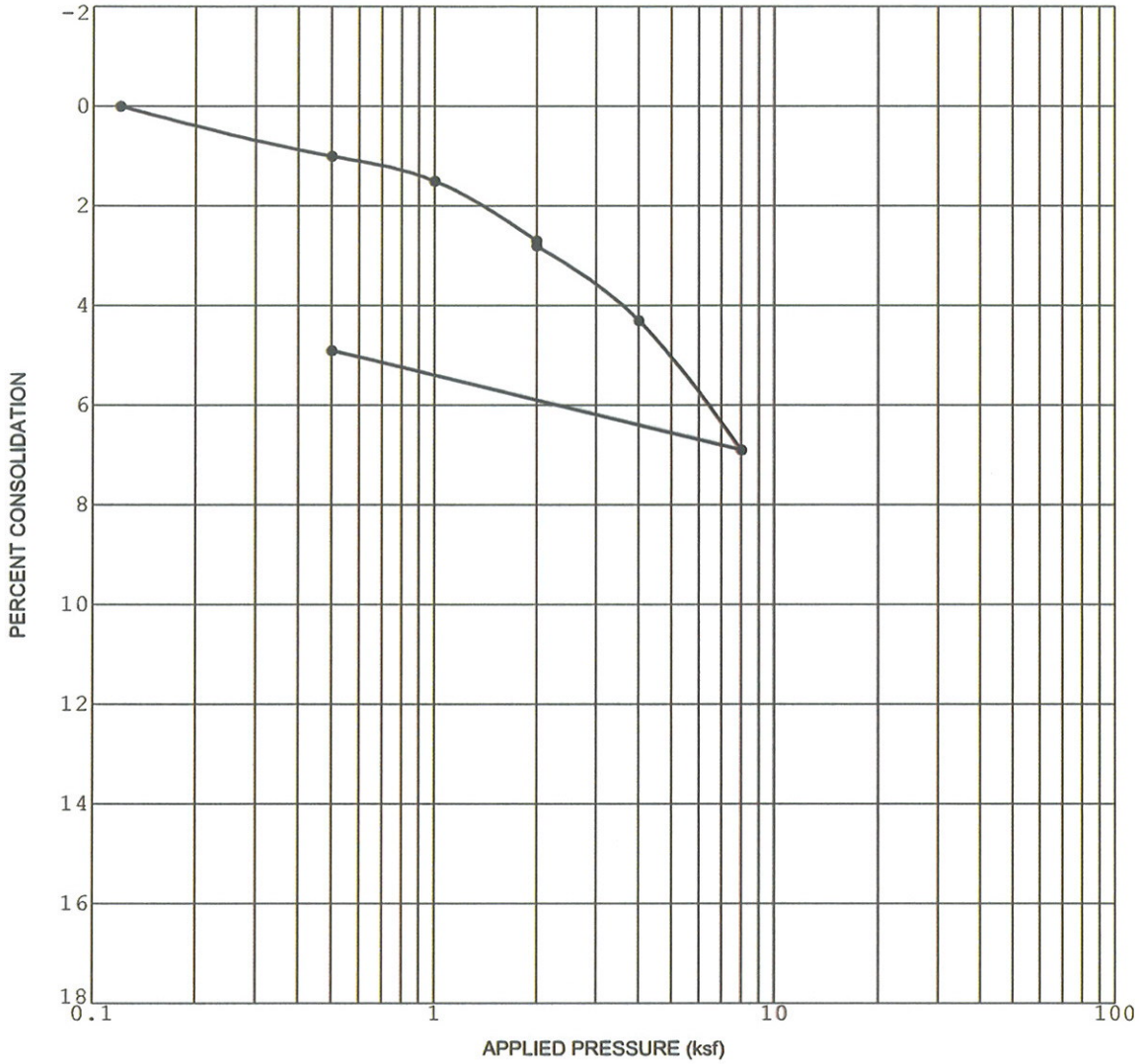
E8547-06-01.GPJ

Figure B-1

GEOCON

PROJECT NO. E8547-06-01

SAMPLE NO. B1-3-3.5



Initial Dry Density (pcf)	92.8	**Initial Saturation (%)**	96.1
Initial Water Content (%)	25.9	**Sample Saturated at (ksf)**	2.0

CONSOLIDATION CURVE

WALNUT CREEK APARTMENTS
1960 NORTH MAIN STREET
WALNUT CREEK, CALIFORNIA

E8547-06-01.GPJ

Figure B-2

GEOCON

LIST OF REFERENCES

California Building Standards Commission, *2007 California Building Code*, based on *2006 International Building Code*, International Code Council.

California Geological Survey (CGS) and United States Geological Survey (USGS) Quaternary Faults and Folds database: http://geohazards.usgs.gov/qfaults/map.php

Contra Costa County Community Development Department, 2005, *Contra Costa County General Plan 2005-2020.*

Dibblee Jr., T.W., 1980, *Preliminary Geologic Map of the Walnut Creek Quadrangle, Contra Costa County, California*, USGS Open File No. 80-351.

Fraser, W.A., 2001, California Division of Safety of Dams, *Fault Activity Guidelines.*

Graymer R.W. et al, 1994, *Preliminary Geologic Mapping Emphasizing Bedrock Formation in Contra Costa County*, USGS Open File No. 94-622 online: http://ngmdb.usgs.gov

Graymer, R.W. et al, 2006, *Geologic Map of the San Francisco Bay Region*, USGS/CGS Scientific Investigations Map 2918.

Hart, E.W. and Bryant, W.A., revised 2007, *Fault-Rupture Hazard Zones in California*, California Geological Survey (CGS) Special Publication 42.

Helley, E.J. and Graymer, R.W., 1997, *Quaternary Geology of Contra Costa County, California and Surrounding Areas: Derived from the Digital Open File 97-98.*

Ishihara, K., *Stability of Natural Deposits During Earthquakes,* Proceedings of the Eleventh International Conference on Soil Mechanics and Foundation Engineering, A. A. Balkema Publishers, Rotterdam, Netherlands, 1985, Vol. 1, pp. 321-376.

Jennings, C.W. and Bryant, W. A., *2010 Fault Activity Map of California*, CGS Geologic Data Map No. 6, online: http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html

Martin, G.R., and Lew, M., 1999, Co-chairs and Editors of the Implementation Committee, *Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California*, Organized through the Southern California Earthquake Center, University of Southern California.

Seed, H.B., Idriss, I.M., and Arango, I., 1983, *Evaluation of Liquefaction Potential Using Field Performance Data*, Journal of the Geotechnical Engineering Division, American Society of Civil Engineers, Vol. 109, No. 3, pp. 458-482.

State of California Department of Transportation, *Highway Design Manual*, Sixth Edition, July 1, 2008.

State of California, *Special Studies Zones, Walnut Creek Quadrangle*, July 1, 1993.

Tinsley, J.C., Youd, T.L., Perkins, D.M., and Chen, A.T.F., 1985, *Evaluating Liquefaction Potential in Evaluating Earthquake Hazards in the Los Angeles Region-An Earth Science Perspective*, USGS Professional Paper 1360, edited by J.I. Ziony, U.S. Government Printing Office, pp. 263-315.

Tokimatsu, K., and Yoshimi, Y., 1983, *Empirical Correlation of Soil Liquefaction Based on SPT N-Value and Fines Content, Soils and Foundations*, Japanese Society of Soil Mechanics and Foundation Engineering, Vol. 23, No. 4, pp. 56-74.

USGS: *Seismic Hazard Curves and Uniform hazard Response Spectra,* available online.

USGS interactive mapping: *Liquefaction Susceptibility Map of the San Francisco Bay Area,* online: http://geomaps.wr.usgs.gov/sfgeo/liquefaction/susceptibility.html

Unpublished reports, aerial photographs and maps on file with Geocon.

Wesnousky, S.G., 1986, *Earthquakes, Quaternary Faults and Seismic Hazard in California*, Journal of Geophysical Research, Vol. 91, No. B12, pp. 12,587-12,631.

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Project Manager
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B179503
Date Received: 07/10/13
Date Analyzed: 07/10/13
Date Printed: 07/10/13
First Reported: 07/10/13

Job ID/Site: 246805 - 1960 Main Street

Date(s) Collected: 07/09/2013

FALI Job ID: 1137
Total Samples Submitted: 8
Total Samples Analyzed: 8

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
S-1	11400431						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-2	11400432						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-3	11400433						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-4	11400434						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-5	11400435						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-6	11400436						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-7	11400437						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-8	11400438						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B179503

Client Name: Curtis & Tompkins Ltd **Date Printed:** 07/10/13

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 246805
ANALYTICAL REPORT

The DirtMarket	Project : STANDARD
37 S 4th Street	Location : 1960 Main Street
Campbell, CA 95008	Level : II

Sample ID	Lab ID
S-1	246805-001
S-2	246805-002
S-3	246805-003
S-4	246805-004
S-5	246805-005
S-6	246805-006
S-7	246805-007
S-8	246805-008

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 07/15/2013

Mike J. Dahlquist
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**246805**
Client:	**The DirtMarket**
Location:	**1960 Main Street**
Request Date:	**07/09/13**
Samples Received:	**07/09/13**

This data package contains sample and QC results for eight soil samples, requested for the above referenced project on 07/09/13. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Many samples were not diluted; the low sample weight is due to 5035 packaging. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
Low recovery was observed for pentachlorophenol in the MSD for batch 200489; the parent sample was not a project sample, and the LCS was within limits. High RPD was observed for 2,4-dinitrotoluene and pentachlorophenol in the MS/MSD for batch 200489; these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Pesticides (EPA 8081A):
All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. No analytical problems were encountered.

PCBs (EPA 8082):
All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
Low recoveries were observed for silver and thallium in the MS/MSD for batch 200493; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPDs were within limits. High recovery was observed for mercury in the MSD of S-1 (lab # 246805-001); the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Asbestos PLM (EPA 600/R-93-116):
Forensic Analytical in Hayward, CA performed the analysis (not NELAP certified). Please see the Forensic Analytical case narrative.

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 246805

Page ____ of ____

Chain of Custody # ____

Project No: 1960 Main Street
Project Name: Walnut Creek Apts
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 24 hr ☐ Standard

Sampler: Kayvan Sehhat
Report To: Dirtmarket - Kayvan - Rob
Company:
Telephone: (408) 395-1490
Email: ksehhat@dirtmarket.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST																
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	CAM 17	VOCs	SVOCs	PCBs	Pesticides	Asbestos											
	S-1	7/9/13	12pm		X									X	X	X	X	X	X											
	S-2	↓	↓		X									X	X	X	X	X	X											
	S-3				X									X	X	X	X	X	X											
	S-4				X									X	X	X	X	X	X											
	S-5				X									X	X	X	X	X	X											
	S-6				X									X	X	X	X	X	X											
	S-7				X									X	X	X	X	X	X											
	S-8				X									X	X	X	X	X	X											

Notes:

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 7/9/13 TIME: 1710
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: 7/9 TIME: 1710
DATE: TIME:
DATE: TIME:

COOLER RECEIPT CHECKLIST Curtis & Tompkins, Ltd.

Login # 246805 Date Received 7/9/13 Number of coolers 1
Client Dirtmarket Project 1960 Main St.

Date Opened 7/9/13 By (print) MG (sign) MG
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
Shipping info _____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO (N/A)
3. Were custody papers dry and intact when received? _____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☒ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) _____

☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ (YES) NO
If YES, what time were they transferred to freezer? 1715
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
12. Are sample labels present, in good condition and complete? _____ (YES) NO
13. Do the sample labels agree with custody papers? _____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? _____ (YES) NO
15. Are the samples appropriately preserved? _____ YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? _____ YES NO (N/A)
17. Did you document your preservative check? _____ YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO (N/A)
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____
_____
_____
_____
_____
_____

Rev 10, 11/11

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/09/13
Units:	mg/Kg	Received:	07/09/13
Basis:	as received	Prepared:	07/09/13
Diln Fac:	1.000		

Field ID: S-1 Batch#: 200466
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-001

Analyte	Result	RL
Diesel C10-C24	1.7 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	89	62-136

Field ID: S-2 Batch#: 200466
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-002

Analyte	Result	RL
Diesel C10-C24	2.7 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	102	62-136

Field ID: S-3 Batch#: 200490
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-003

Analyte	Result	RL
Diesel C10-C24	2.6 Y	1.0
Motor Oil C24-C36	16	5.0

Surrogate	%REC	Limits
o-Terphenyl	111	62-136

Field ID: S-4 Batch#: 200490
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-004

Analyte	Result	RL
Diesel C10-C24	2.1 Y	1.0
Motor Oil C24-C36	12	5.0

Surrogate	%REC	Limits
o-Terphenyl	102	62-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/09/13
Units:	mg/Kg	Received:	07/09/13
Basis:	as received	Prepared:	07/09/13
Diln Fac:	1.000		

Field ID: S-5 Batch#: 200490
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-005

Analyte	Result	RL
Diesel C10-C24	13 Y	1.0
Motor Oil C24-C36	30	5.0

Surrogate	%REC	Limits
o-Terphenyl	105	62-136

Field ID: S-6 Batch#: 200490
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-006

Analyte	Result	RL
Diesel C10-C24	1.1 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	105	62-136

Field ID: S-7 Batch#: 200490
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-007

Analyte	Result	RL
Diesel C10-C24	2.5 Y	1.0
Motor Oil C24-C36	13	5.0

Surrogate	%REC	Limits
o-Terphenyl	108	62-136

Field ID: S-8 Batch#: 200490
Type: SAMPLE Analyzed: 07/10/13
Lab ID: 246805-008

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	99	62-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/09/13
Units:	mg/Kg	Received:	07/09/13
Basis:	as received	Prepared:	07/09/13
Diln Fac:	1.000		

Type: BLANK
Lab ID: QC696852
Batch#: 200466
Analyzed: 07/09/13

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	105	62-136

Type: BLANK
Lab ID: QC696943
Batch#: 200490
Analyzed: 07/10/13

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	109	62-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC696853	Batch#:	200466
Matrix:	Soil	Prepared:	07/09/13
Units:	mg/Kg	Analyzed:	07/09/13

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.45	45.94	91	62-130

Surrogate	%REC	Limits
o-Terphenyl	108	62-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	200466
MSS Lab ID:	246742-073	Sampled:	07/05/13
Matrix:	Soil	Received:	07/05/13
Units:	mg/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/09/13
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC696854

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	6.658	49.84	44.34	76	39-148

Surrogate	%REC	Limits
o-Terphenyl	94	62-136

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC696855

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.65	54.66	97	39-148	21	45

Surrogate	%REC	Limits
o-Terphenyl	102	62-136

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

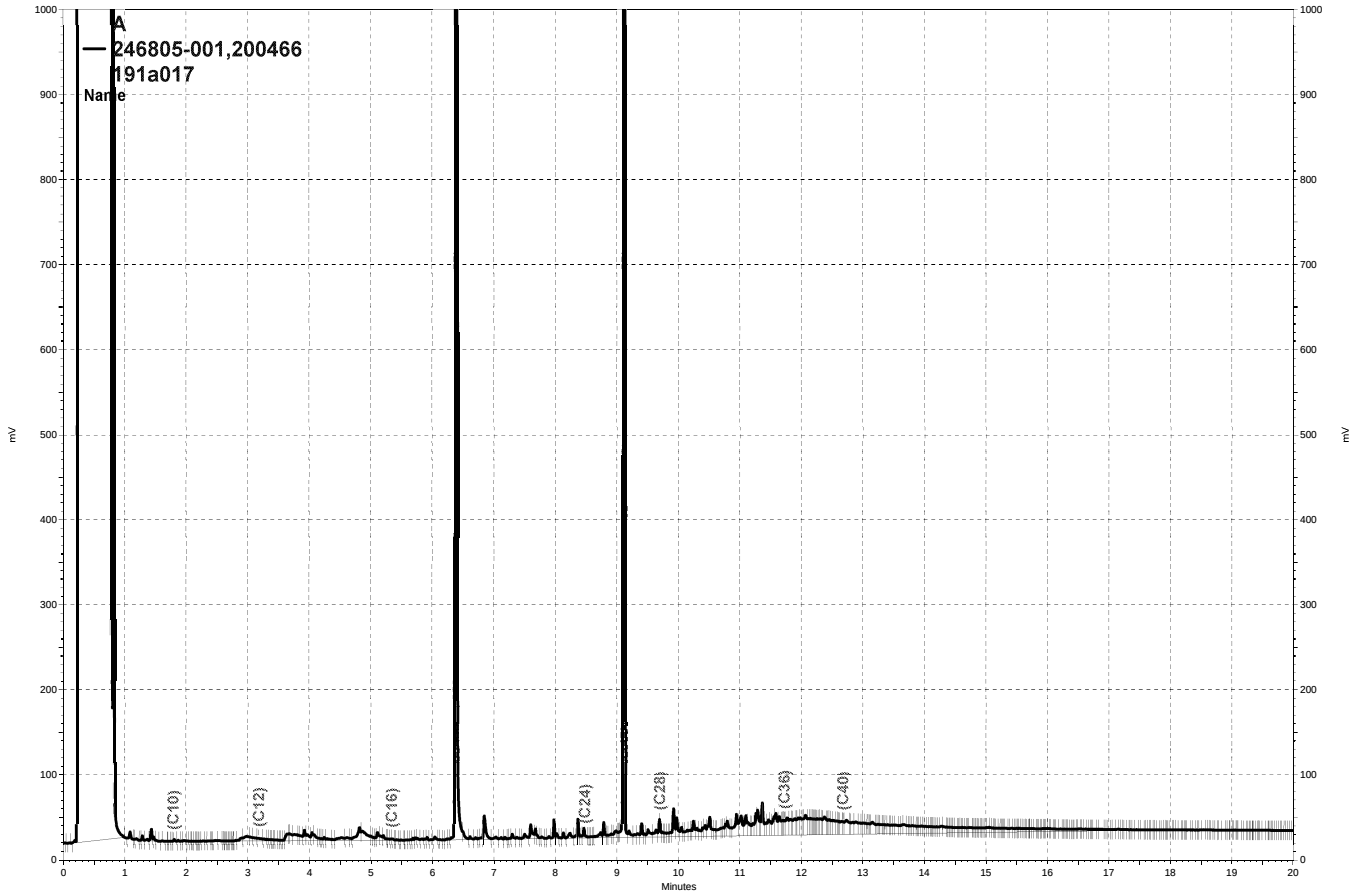
Total Extractable Hydrocarbons

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC696944	Batch#:	200490
Matrix:	Soil	Prepared:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13

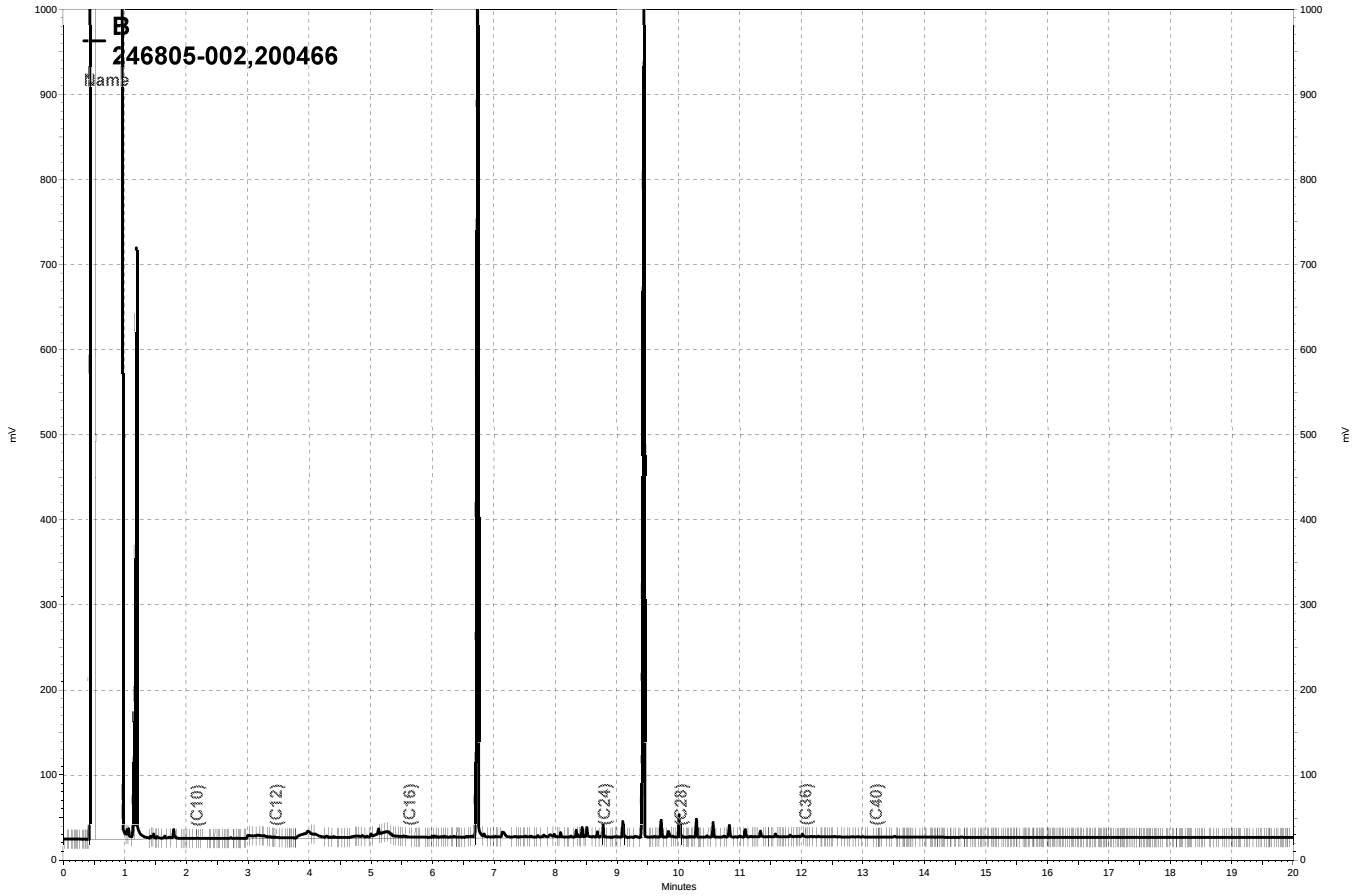
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.18	49.50	99	62-130

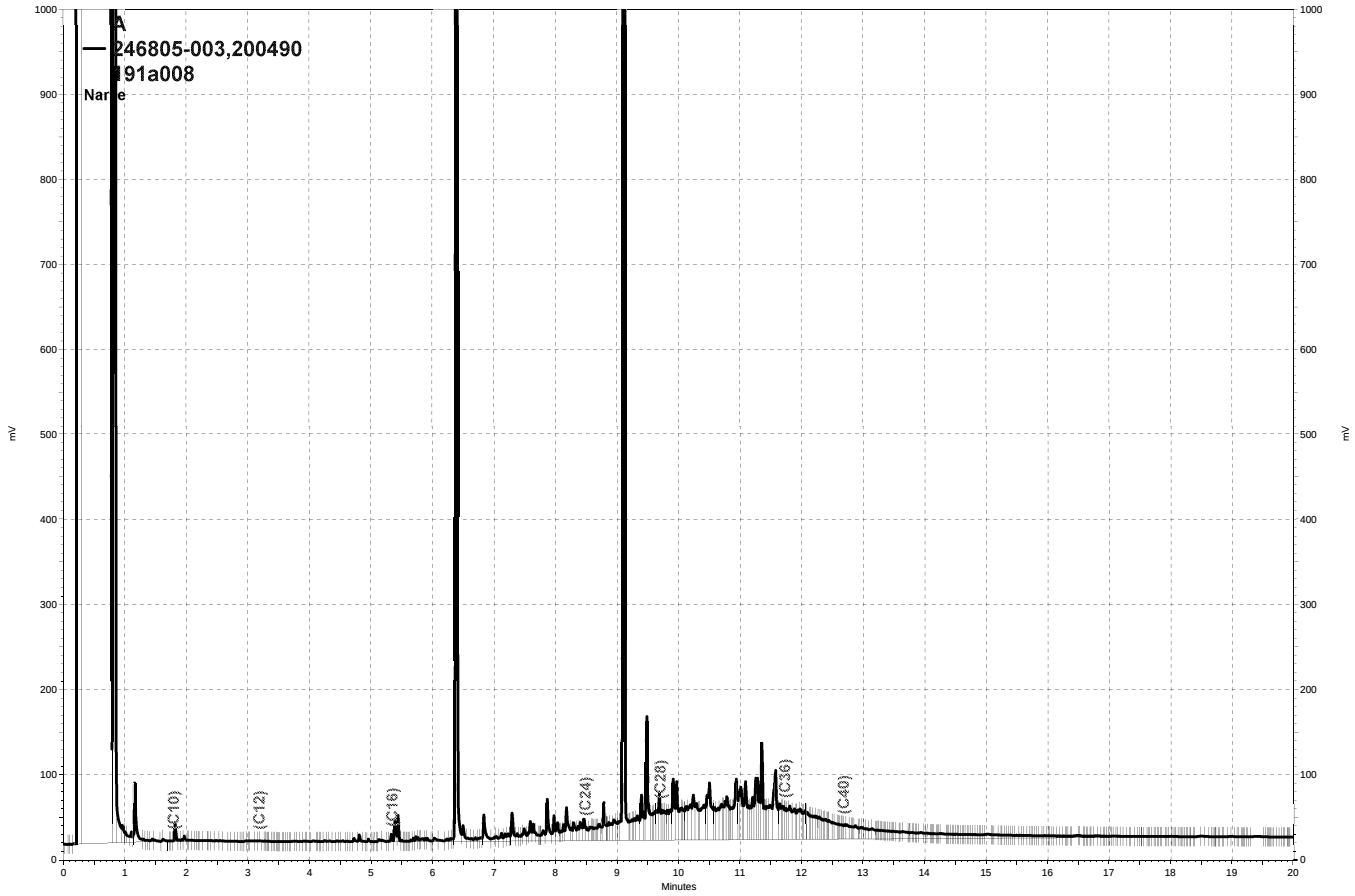
Surrogate	%REC	Limits
o-Terphenyl	108	62-136



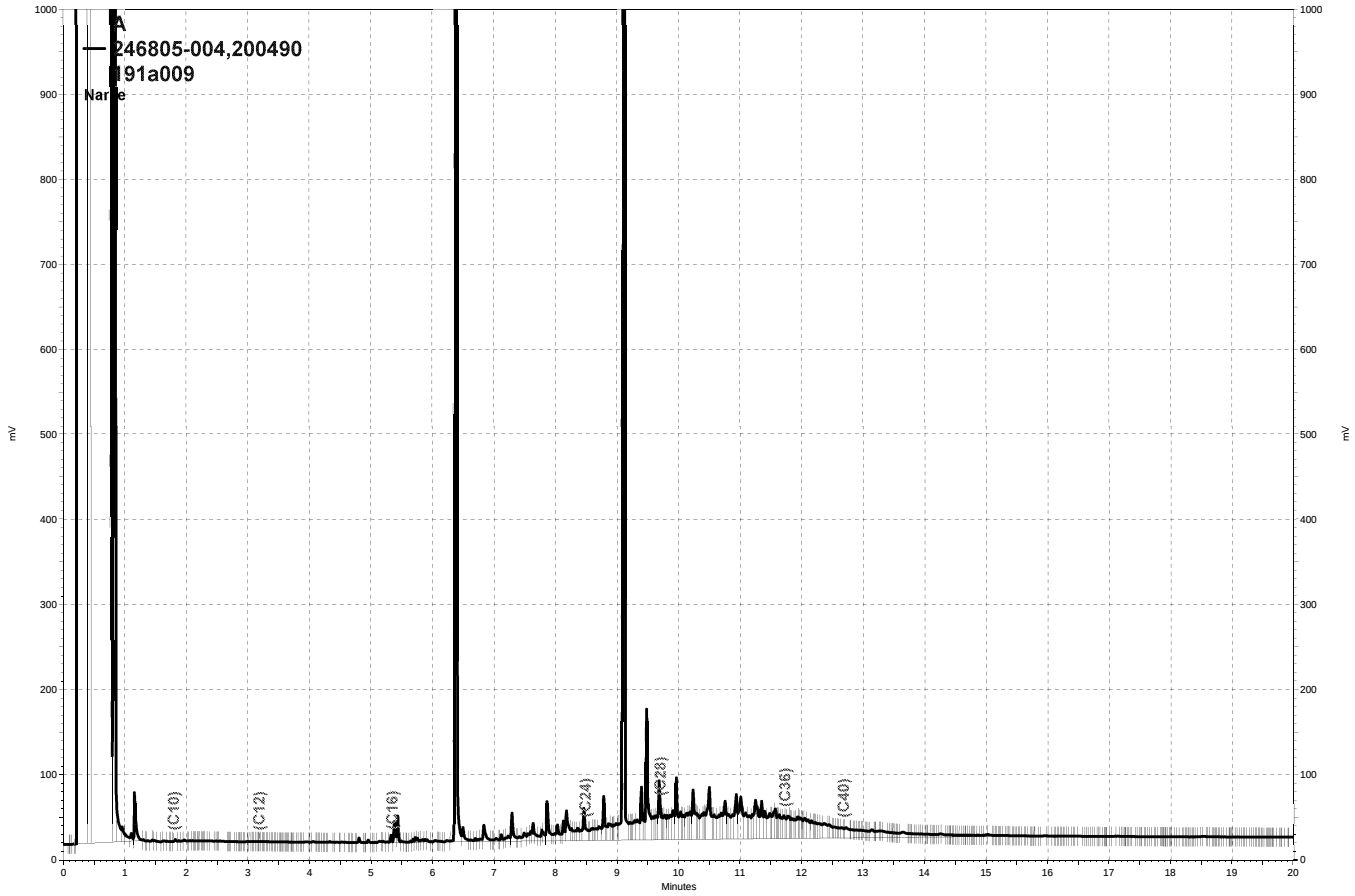
\\Lims\gdrive\ezchrom\Projects\GC17A\Data\191a017, A



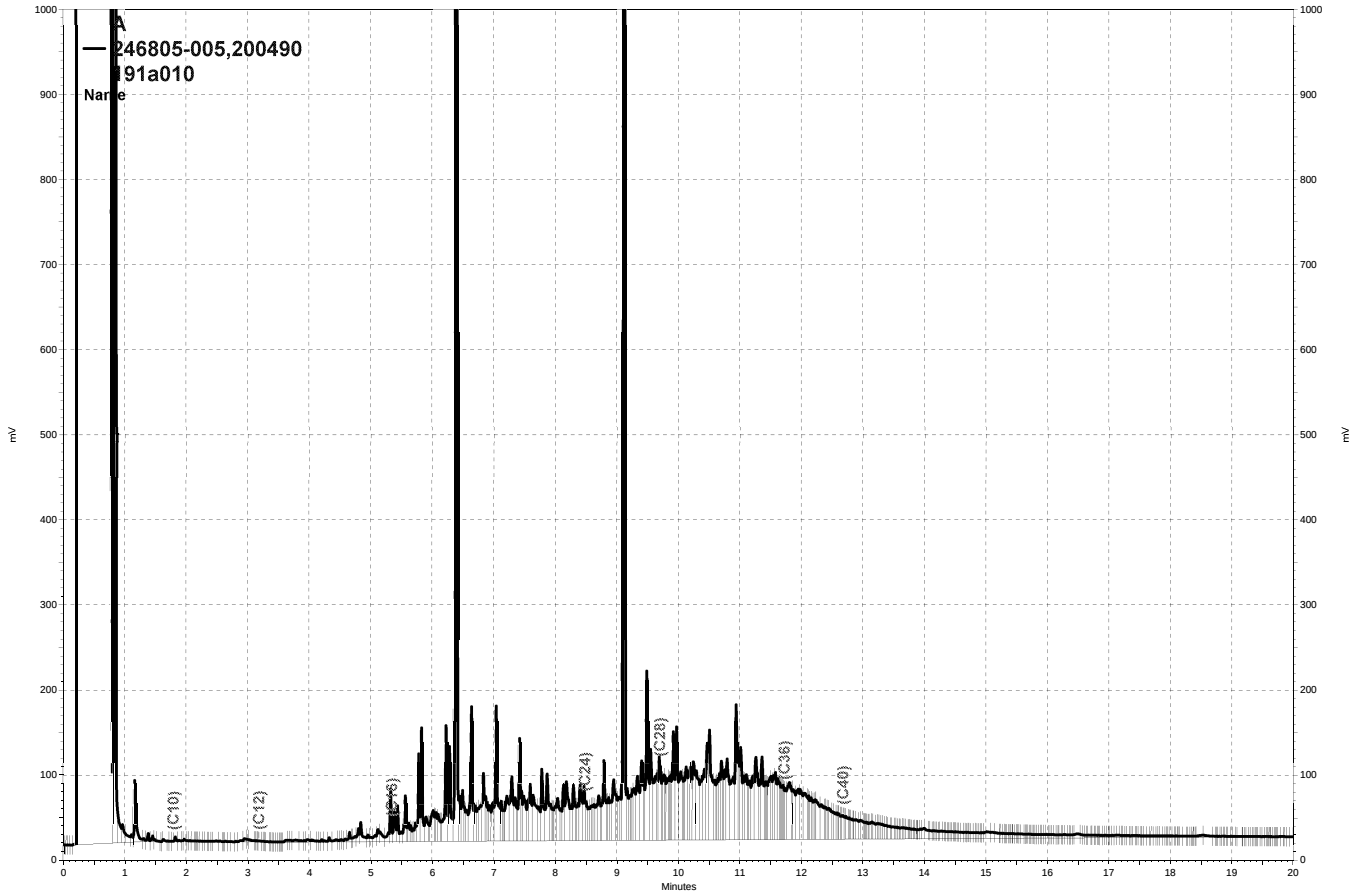
\\Lims\gdrive\ezchrom\Projects\GC14B\Data\191b015, B



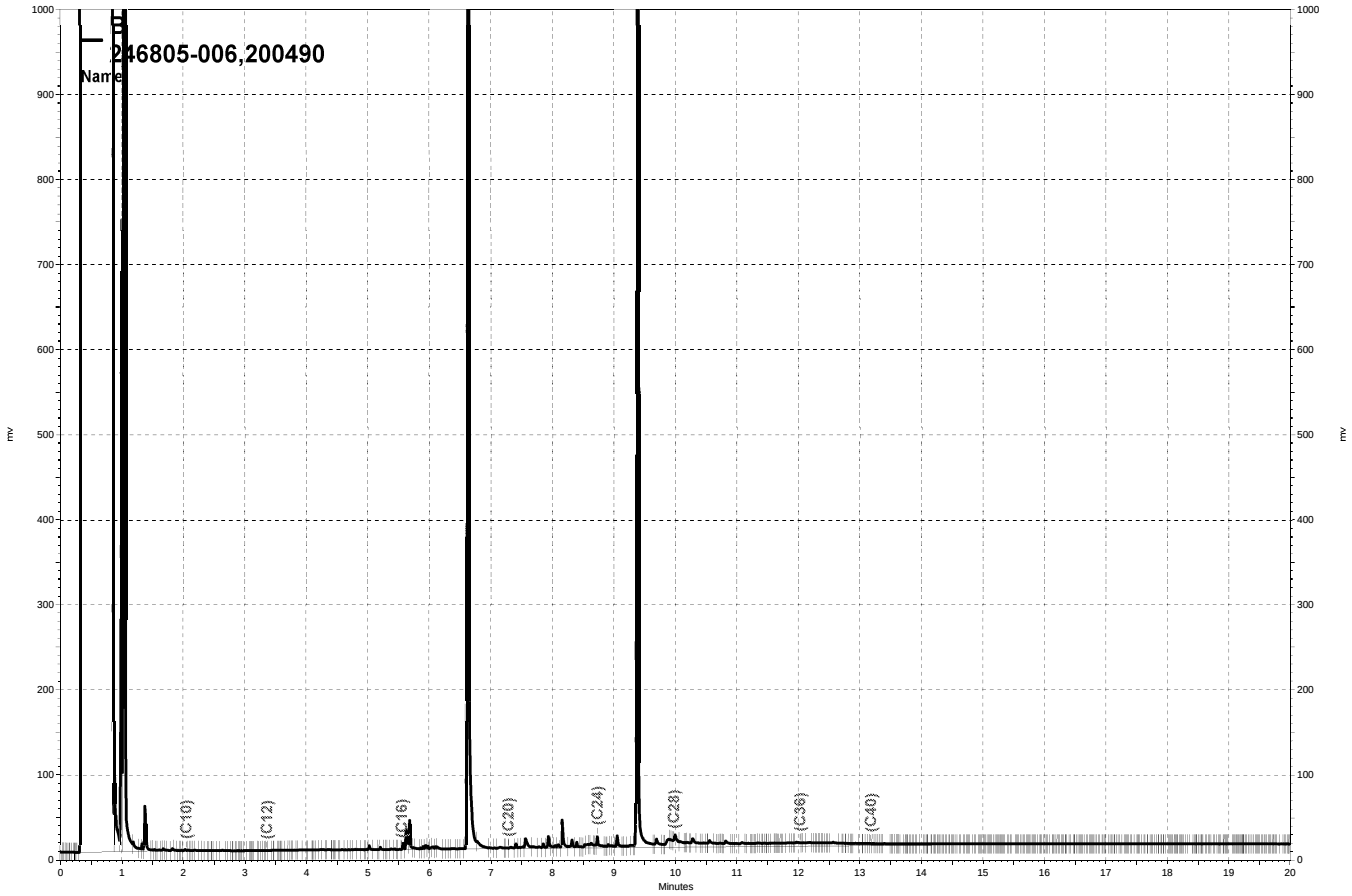
\\Lims\gdrive\ezchrom\Projects\GC17A\Data\191a008, A



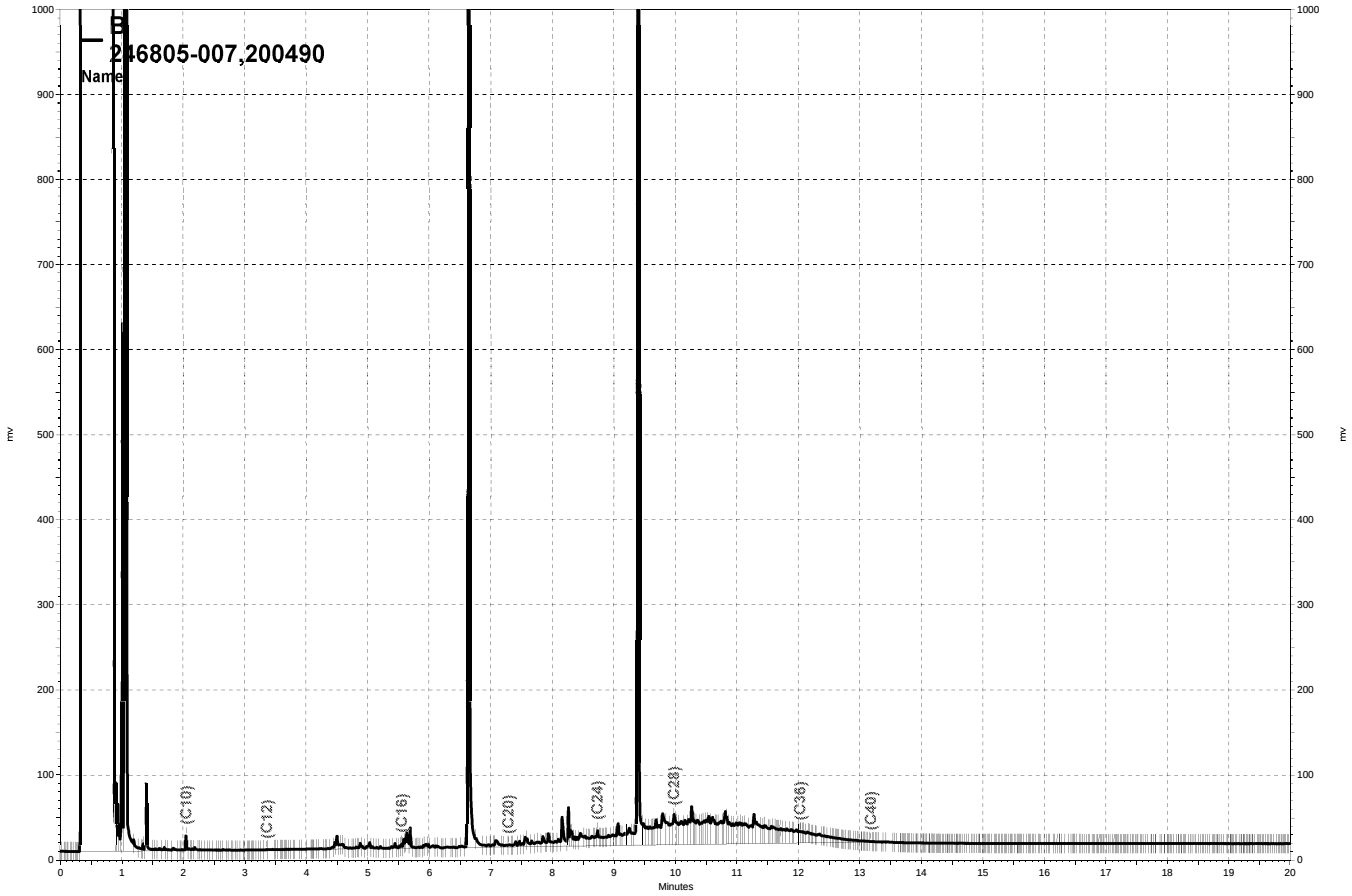
\\Lims\gdrive\ezchrom\Projects\GC17A\Data\191a009, A



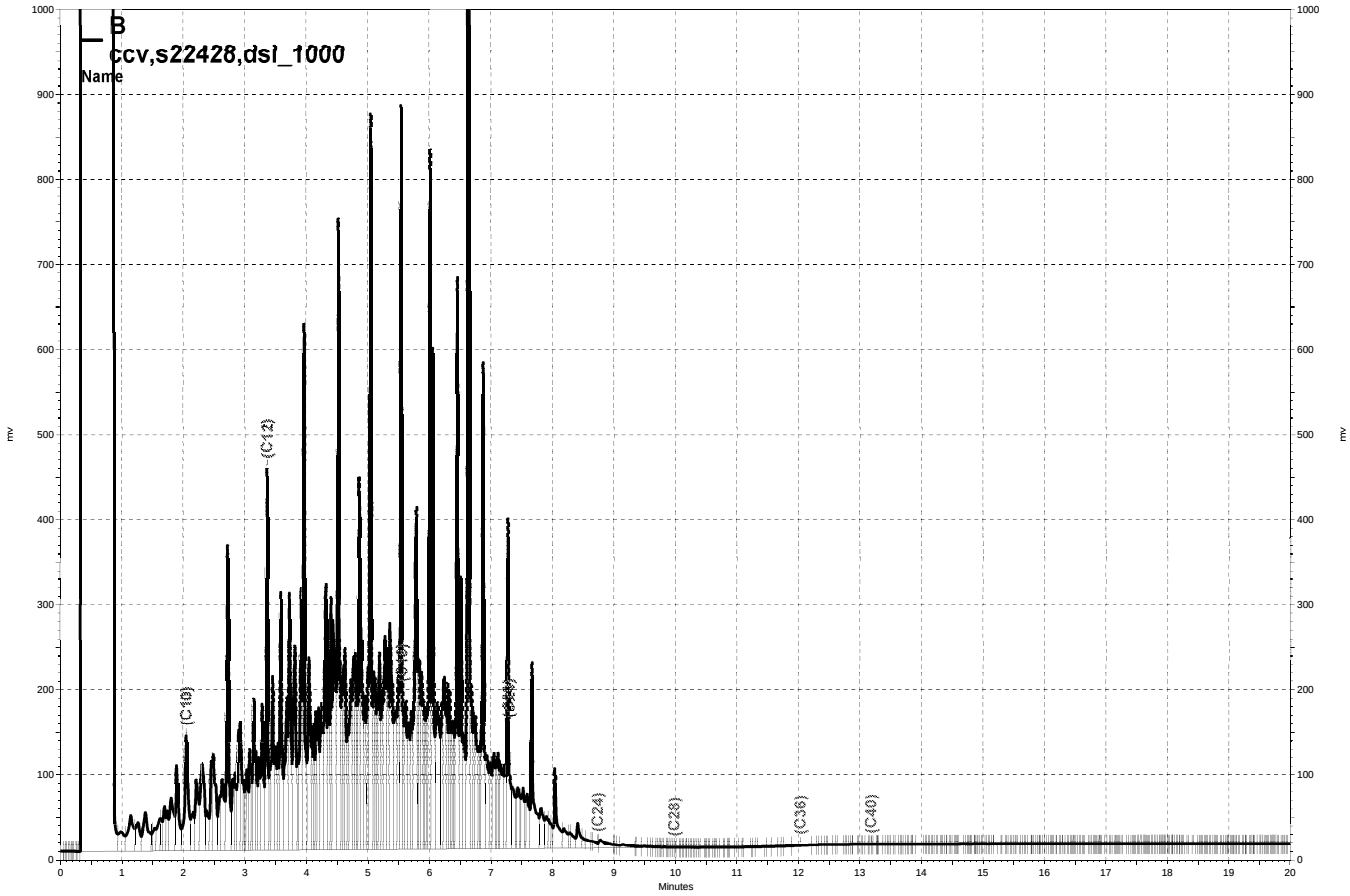
\\Lims\gdrive\ezchrom\Projects\GC17A\Data\191a010, A



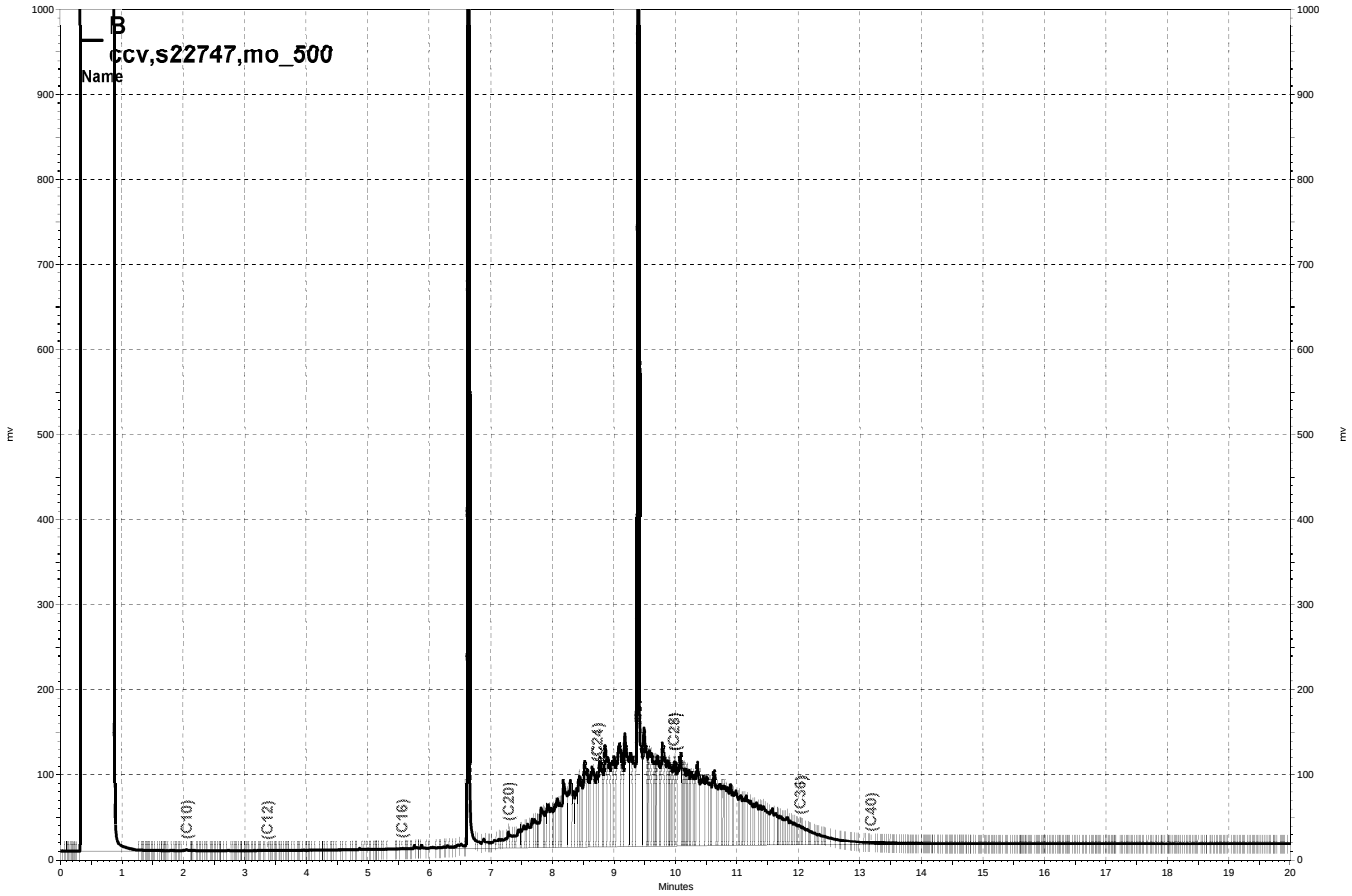
\\Lims\gdrive\ezchrom\Projects\GC15B\Data\191b005, B



\\Lims\gdrive\ezchrom\Projects\GC15B\Data\191b007, B



\\Lims\gdrive\ezchrom\Projects\GC15B\Data\191b004, B



\\Lims\gdrive\ezchrom\Projects\GC15B\Data\191b003, B

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-1	Diln Fac:	1.312
Lab ID:	246805-001	Batch#:	200512
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Freon 12	ND	13
Chloromethane	ND	13
Vinyl Chloride	ND	13
Bromomethane	ND	13
Chloroethane	ND	13
Trichlorofluoromethane	ND	6.6
Acetone	ND	26
Freon 113	ND	6.6
1,1-Dichloroethene	ND	6.6
Methylene Chloride	ND	26
Carbon Disulfide	ND	6.6
MTBE	ND	6.6
trans-1,2-Dichloroethene	ND	6.6
Vinyl Acetate	ND	66
1,1-Dichloroethane	ND	6.6
2-Butanone	ND	13
cis-1,2-Dichloroethene	ND	6.6
2,2-Dichloropropane	ND	6.6
Chloroform	ND	6.6
Bromochloromethane	ND	6.6
1,1,1-Trichloroethane	ND	6.6
1,1-Dichloropropene	ND	6.6
Carbon Tetrachloride	ND	6.6
1,2-Dichloroethane	ND	6.6
Benzene	ND	6.6
Trichloroethene	ND	6.6
1,2-Dichloropropane	ND	6.6
Bromodichloromethane	ND	6.6
Dibromomethane	ND	6.6
4-Methyl-2-Pentanone	ND	13
cis-1,3-Dichloropropene	ND	6.6
Toluene	ND	6.6
trans-1,3-Dichloropropene	ND	6.6
1,1,2-Trichloroethane	ND	6.6
2-Hexanone	ND	13
1,3-Dichloropropane	ND	6.6
Tetrachloroethene	ND	6.6

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-1	Diln Fac:	1.312
Lab ID:	246805-001	Batch#:	200512
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Dibromochloromethane	ND	6.6
1,2-Dibromoethane	ND	6.6
Chlorobenzene	ND	6.6
1,1,1,2-Tetrachloroethane	ND	6.6
Ethylbenzene	ND	6.6
m,p-Xylenes	ND	6.6
o-Xylene	ND	6.6
Styrene	ND	6.6
Bromoform	ND	6.6
Isopropylbenzene	ND	6.6
1,1,2,2-Tetrachloroethane	ND	6.6
1,2,3-Trichloropropane	ND	6.6
Propylbenzene	ND	6.6
Bromobenzene	ND	6.6
1,3,5-Trimethylbenzene	ND	6.6
2-Chlorotoluene	ND	6.6
4-Chlorotoluene	ND	6.6
tert-Butylbenzene	ND	6.6
1,2,4-Trimethylbenzene	ND	6.6
sec-Butylbenzene	ND	6.6
para-Isopropyl Toluene	ND	6.6
1,3-Dichlorobenzene	ND	6.6
1,4-Dichlorobenzene	ND	6.6
n-Butylbenzene	ND	6.6
1,2-Dichlorobenzene	ND	6.6
1,2-Dibromo-3-Chloropropane	ND	6.6
1,2,4-Trichlorobenzene	ND	6.6
Hexachlorobutadiene	ND	6.6
Naphthalene	ND	6.6
1,2,3-Trichlorobenzene	ND	6.6

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-124
1,2-Dichloroethane-d4	85	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	99	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-2	Diln Fac:	1.094
Lab ID:	246805-002	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/09/13

Analyte	Result	RL
Freon 12	ND	11
Chloromethane	ND	11
Vinyl Chloride	ND	11
Bromomethane	ND	11
Chloroethane	ND	11
Trichlorofluoromethane	ND	5.5
Acetone	ND	22
Freon 113	ND	5.5
1,1-Dichloroethene	ND	5.5
Methylene Chloride	ND	22
Carbon Disulfide	ND	5.5
MTBE	ND	5.5
trans-1,2-Dichloroethene	ND	5.5
Vinyl Acetate	ND	55
1,1-Dichloroethane	ND	5.5
2-Butanone	ND	11
cis-1,2-Dichloroethene	ND	5.5
2,2-Dichloropropane	ND	5.5
Chloroform	ND	5.5
Bromochloromethane	ND	5.5
1,1,1-Trichloroethane	ND	5.5
1,1-Dichloropropene	ND	5.5
Carbon Tetrachloride	ND	5.5
1,2-Dichloroethane	ND	5.5
Benzene	ND	5.5
Trichloroethene	ND	5.5
1,2-Dichloropropane	ND	5.5
Bromodichloromethane	ND	5.5
Dibromomethane	ND	5.5
4-Methyl-2-Pentanone	ND	11
cis-1,3-Dichloropropene	ND	5.5
Toluene	ND	5.5
trans-1,3-Dichloropropene	ND	5.5
1,1,2-Trichloroethane	ND	5.5
2-Hexanone	ND	11
1,3-Dichloropropane	ND	5.5
Tetrachloroethene	ND	5.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-2	Diln Fac:	1.094
Lab ID:	246805-002	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/09/13

Analyte	Result	RL
Dibromochloromethane	ND	5.5
1,2-Dibromoethane	ND	5.5
Chlorobenzene	ND	5.5
1,1,1,2-Tetrachloroethane	ND	5.5
Ethylbenzene	ND	5.5
m,p-Xylenes	ND	5.5
o-Xylene	ND	5.5
Styrene	ND	5.5
Bromoform	ND	5.5
Isopropylbenzene	ND	5.5
1,1,2,2-Tetrachloroethane	ND	5.5
1,2,3-Trichloropropane	ND	5.5
Propylbenzene	ND	5.5
Bromobenzene	ND	5.5
1,3,5-Trimethylbenzene	ND	5.5
2-Chlorotoluene	ND	5.5
4-Chlorotoluene	ND	5.5
tert-Butylbenzene	ND	5.5
1,2,4-Trimethylbenzene	ND	5.5
sec-Butylbenzene	ND	5.5
para-Isopropyl Toluene	ND	5.5
1,3-Dichlorobenzene	ND	5.5
1,4-Dichlorobenzene	ND	5.5
n-Butylbenzene	ND	5.5
1,2-Dichlorobenzene	ND	5.5
1,2-Dibromo-3-Chloropropane	ND	5.5
1,2,4-Trichlorobenzene	ND	5.5
Hexachlorobutadiene	ND	5.5
Naphthalene	ND	5.5
1,2,3-Trichlorobenzene	ND	5.5

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-124
1,2-Dichloroethane-d4	104	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	94	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-3	Diln Fac:	1.126
Lab ID:	246805-003	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/09/13

Analyte	Result	RL
Freon 12	ND	11
Chloromethane	ND	11
Vinyl Chloride	ND	11
Bromomethane	ND	11
Chloroethane	ND	11
Trichlorofluoromethane	ND	5.6
Acetone	ND	23
Freon 113	ND	5.6
1,1-Dichloroethene	ND	5.6
Methylene Chloride	ND	23
Carbon Disulfide	ND	5.6
MTBE	ND	5.6
trans-1,2-Dichloroethene	ND	5.6
Vinyl Acetate	ND	56
1,1-Dichloroethane	ND	5.6
2-Butanone	ND	11
cis-1,2-Dichloroethene	ND	5.6
2,2-Dichloropropane	ND	5.6
Chloroform	ND	5.6
Bromochloromethane	ND	5.6
1,1,1-Trichloroethane	ND	5.6
1,1-Dichloropropene	ND	5.6
Carbon Tetrachloride	ND	5.6
1,2-Dichloroethane	ND	5.6
Benzene	ND	5.6
Trichloroethene	ND	5.6
1,2-Dichloropropane	ND	5.6
Bromodichloromethane	ND	5.6
Dibromomethane	ND	5.6
4-Methyl-2-Pentanone	ND	11
cis-1,3-Dichloropropene	ND	5.6
Toluene	ND	5.6
trans-1,3-Dichloropropene	ND	5.6
1,1,2-Trichloroethane	ND	5.6
2-Hexanone	ND	11
1,3-Dichloropropane	ND	5.6
Tetrachloroethene	ND	5.6

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-3	Diln Fac:	1.126
Lab ID:	246805-003	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/09/13

Analyte	Result	RL
Dibromochloromethane	ND	5.6
1,2-Dibromoethane	ND	5.6
Chlorobenzene	ND	5.6
1,1,1,2-Tetrachloroethane	ND	5.6
Ethylbenzene	ND	5.6
m,p-Xylenes	ND	5.6
o-Xylene	ND	5.6
Styrene	ND	5.6
Bromoform	ND	5.6
Isopropylbenzene	ND	5.6
1,1,2,2-Tetrachloroethane	ND	5.6
1,2,3-Trichloropropane	ND	5.6
Propylbenzene	ND	5.6
Bromobenzene	ND	5.6
1,3,5-Trimethylbenzene	ND	5.6
2-Chlorotoluene	ND	5.6
4-Chlorotoluene	ND	5.6
tert-Butylbenzene	ND	5.6
1,2,4-Trimethylbenzene	ND	5.6
sec-Butylbenzene	ND	5.6
para-Isopropyl Toluene	ND	5.6
1,3-Dichlorobenzene	ND	5.6
1,4-Dichlorobenzene	ND	5.6
n-Butylbenzene	ND	5.6
1,2-Dichlorobenzene	ND	5.6
1,2-Dibromo-3-Chloropropane	ND	5.6
1,2,4-Trichlorobenzene	ND	5.6
Hexachlorobutadiene	ND	5.6
Naphthalene	ND	5.6
1,2,3-Trichlorobenzene	ND	5.6

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-124
1,2-Dichloroethane-d4	96	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	97	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-4	Diln Fac:	1.333
Lab ID:	246805-004	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/09/13

Analyte	Result	RL
Freon 12	ND	13
Chloromethane	ND	13
Vinyl Chloride	ND	13
Bromomethane	ND	13
Chloroethane	ND	13
Trichlorofluoromethane	ND	6.7
Acetone	ND	27
Freon 113	ND	6.7
1,1-Dichloroethene	ND	6.7
Methylene Chloride	ND	27
Carbon Disulfide	ND	6.7
MTBE	ND	6.7
trans-1,2-Dichloroethene	ND	6.7
Vinyl Acetate	ND	67
1,1-Dichloroethane	ND	6.7
2-Butanone	ND	13
cis-1,2-Dichloroethene	ND	6.7
2,2-Dichloropropane	ND	6.7
Chloroform	ND	6.7
Bromochloromethane	ND	6.7
1,1,1-Trichloroethane	ND	6.7
1,1-Dichloropropene	ND	6.7
Carbon Tetrachloride	ND	6.7
1,2-Dichloroethane	ND	6.7
Benzene	ND	6.7
Trichloroethene	ND	6.7
1,2-Dichloropropane	ND	6.7
Bromodichloromethane	ND	6.7
Dibromomethane	ND	6.7
4-Methyl-2-Pentanone	ND	13
cis-1,3-Dichloropropene	ND	6.7
Toluene	ND	6.7
trans-1,3-Dichloropropene	ND	6.7
1,1,2-Trichloroethane	ND	6.7
2-Hexanone	ND	13
1,3-Dichloropropane	ND	6.7
Tetrachloroethene	ND	6.7

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-4	Diln Fac:	1.333
Lab ID:	246805-004	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/09/13

Analyte	Result	RL
Dibromochloromethane	ND	6.7
1,2-Dibromoethane	ND	6.7
Chlorobenzene	ND	6.7
1,1,1,2-Tetrachloroethane	ND	6.7
Ethylbenzene	ND	6.7
m,p-Xylenes	ND	6.7
o-Xylene	ND	6.7
Styrene	ND	6.7
Bromoform	ND	6.7
Isopropylbenzene	ND	6.7
1,1,2,2-Tetrachloroethane	ND	6.7
1,2,3-Trichloropropane	ND	6.7
Propylbenzene	ND	6.7
Bromobenzene	ND	6.7
1,3,5-Trimethylbenzene	ND	6.7
2-Chlorotoluene	ND	6.7
4-Chlorotoluene	ND	6.7
tert-Butylbenzene	ND	6.7
1,2,4-Trimethylbenzene	ND	6.7
sec-Butylbenzene	ND	6.7
para-Isopropyl Toluene	ND	6.7
1,3-Dichlorobenzene	ND	6.7
1,4-Dichlorobenzene	ND	6.7
n-Butylbenzene	ND	6.7
1,2-Dichlorobenzene	ND	6.7
1,2-Dibromo-3-Chloropropane	ND	6.7
1,2,4-Trichlorobenzene	ND	6.7
Hexachlorobutadiene	ND	6.7
Naphthalene	ND	6.7
1,2,3-Trichlorobenzene	ND	6.7

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-124
1,2-Dichloroethane-d4	106	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	95	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-5	Diln Fac:	1.355
Lab ID:	246805-005	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Freon 12	ND	14
Chloromethane	ND	14
Vinyl Chloride	ND	14
Bromomethane	ND	14
Chloroethane	ND	14
Trichlorofluoromethane	ND	6.8
Acetone	ND	27
Freon 113	ND	6.8
1,1-Dichloroethene	ND	6.8
Methylene Chloride	ND	27
Carbon Disulfide	ND	6.8
MTBE	ND	6.8
trans-1,2-Dichloroethene	ND	6.8
Vinyl Acetate	ND	68
1,1-Dichloroethane	ND	6.8
2-Butanone	ND	14
cis-1,2-Dichloroethene	ND	6.8
2,2-Dichloropropane	ND	6.8
Chloroform	ND	6.8
Bromochloromethane	ND	6.8
1,1,1-Trichloroethane	ND	6.8
1,1-Dichloropropene	ND	6.8
Carbon Tetrachloride	ND	6.8
1,2-Dichloroethane	ND	6.8
Benzene	ND	6.8
Trichloroethene	ND	6.8
1,2-Dichloropropane	ND	6.8
Bromodichloromethane	ND	6.8
Dibromomethane	ND	6.8
4-Methyl-2-Pentanone	ND	14
cis-1,3-Dichloropropene	ND	6.8
Toluene	ND	6.8
trans-1,3-Dichloropropene	ND	6.8
1,1,2-Trichloroethane	ND	6.8
2-Hexanone	ND	14
1,3-Dichloropropane	ND	6.8
Tetrachloroethene	ND	6.8

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-5	Diln Fac:	1.355
Lab ID:	246805-005	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Dibromochloromethane	ND	6.8
1,2-Dibromoethane	ND	6.8
Chlorobenzene	ND	6.8
1,1,1,2-Tetrachloroethane	ND	6.8
Ethylbenzene	ND	6.8
m,p-Xylenes	ND	6.8
o-Xylene	ND	6.8
Styrene	ND	6.8
Bromoform	ND	6.8
Isopropylbenzene	ND	6.8
1,1,2,2-Tetrachloroethane	ND	6.8
1,2,3-Trichloropropane	ND	6.8
Propylbenzene	ND	6.8
Bromobenzene	ND	6.8
1,3,5-Trimethylbenzene	ND	6.8
2-Chlorotoluene	ND	6.8
4-Chlorotoluene	ND	6.8
tert-Butylbenzene	ND	6.8
1,2,4-Trimethylbenzene	ND	6.8
sec-Butylbenzene	ND	6.8
para-Isopropyl Toluene	ND	6.8
1,3-Dichlorobenzene	ND	6.8
1,4-Dichlorobenzene	ND	6.8
n-Butylbenzene	ND	6.8
1,2-Dichlorobenzene	ND	6.8
1,2-Dibromo-3-Chloropropane	ND	6.8
1,2,4-Trichlorobenzene	ND	6.8
Hexachlorobutadiene	ND	6.8
Naphthalene	ND	6.8
1,2,3-Trichlorobenzene	ND	6.8

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-124
1,2-Dichloroethane-d4	104	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	100	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-6	Diln Fac:	1.355
Lab ID:	246805-006	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Freon 12	ND	14
Chloromethane	ND	14
Vinyl Chloride	ND	14
Bromomethane	ND	14
Chloroethane	ND	14
Trichlorofluoromethane	ND	6.8
Acetone	ND	27
Freon 113	ND	6.8
1,1-Dichloroethene	ND	6.8
Methylene Chloride	ND	27
Carbon Disulfide	ND	6.8
MTBE	ND	6.8
trans-1,2-Dichloroethene	ND	6.8
Vinyl Acetate	ND	68
1,1-Dichloroethane	ND	6.8
2-Butanone	ND	14
cis-1,2-Dichloroethene	ND	6.8
2,2-Dichloropropane	ND	6.8
Chloroform	ND	6.8
Bromochloromethane	ND	6.8
1,1,1-Trichloroethane	ND	6.8
1,1-Dichloropropene	ND	6.8
Carbon Tetrachloride	ND	6.8
1,2-Dichloroethane	ND	6.8
Benzene	ND	6.8
Trichloroethene	ND	6.8
1,2-Dichloropropane	ND	6.8
Bromodichloromethane	ND	6.8
Dibromomethane	ND	6.8
4-Methyl-2-Pentanone	ND	14
cis-1,3-Dichloropropene	ND	6.8
Toluene	ND	6.8
trans-1,3-Dichloropropene	ND	6.8
1,1,2-Trichloroethane	ND	6.8
2-Hexanone	ND	14
1,3-Dichloropropane	ND	6.8
Tetrachloroethene	ND	6.8

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-6	Diln Fac:	1.355
Lab ID:	246805-006	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Dibromochloromethane	ND	6.8
1,2-Dibromoethane	ND	6.8
Chlorobenzene	ND	6.8
1,1,1,2-Tetrachloroethane	ND	6.8
Ethylbenzene	ND	6.8
m,p-Xylenes	ND	6.8
o-Xylene	ND	6.8
Styrene	ND	6.8
Bromoform	ND	6.8
Isopropylbenzene	ND	6.8
1,1,2,2-Tetrachloroethane	ND	6.8
1,2,3-Trichloropropane	ND	6.8
Propylbenzene	ND	6.8
Bromobenzene	ND	6.8
1,3,5-Trimethylbenzene	ND	6.8
2-Chlorotoluene	ND	6.8
4-Chlorotoluene	ND	6.8
tert-Butylbenzene	ND	6.8
1,2,4-Trimethylbenzene	ND	6.8
sec-Butylbenzene	ND	6.8
para-Isopropyl Toluene	ND	6.8
1,3-Dichlorobenzene	ND	6.8
1,4-Dichlorobenzene	ND	6.8
n-Butylbenzene	ND	6.8
1,2-Dichlorobenzene	ND	6.8
1,2-Dibromo-3-Chloropropane	ND	6.8
1,2,4-Trichlorobenzene	ND	6.8
Hexachlorobutadiene	ND	6.8
Naphthalene	ND	6.8
1,2,3-Trichlorobenzene	ND	6.8

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-124
1,2-Dichloroethane-d4	104	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	95	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-7	Diln Fac:	1.355
Lab ID:	246805-007	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Freon 12	ND	14
Chloromethane	ND	14
Vinyl Chloride	ND	14
Bromomethane	ND	14
Chloroethane	ND	14
Trichlorofluoromethane	ND	6.8
Acetone	ND	27
Freon 113	ND	6.8
1,1-Dichloroethene	ND	6.8
Methylene Chloride	ND	27
Carbon Disulfide	ND	6.8
MTBE	ND	6.8
trans-1,2-Dichloroethene	ND	6.8
Vinyl Acetate	ND	68
1,1-Dichloroethane	ND	6.8
2-Butanone	ND	14
cis-1,2-Dichloroethene	ND	6.8
2,2-Dichloropropane	ND	6.8
Chloroform	ND	6.8
Bromochloromethane	ND	6.8
1,1,1-Trichloroethane	ND	6.8
1,1-Dichloropropene	ND	6.8
Carbon Tetrachloride	ND	6.8
1,2-Dichloroethane	ND	6.8
Benzene	ND	6.8
Trichloroethene	ND	6.8
1,2-Dichloropropane	ND	6.8
Bromodichloromethane	ND	6.8
Dibromomethane	ND	6.8
4-Methyl-2-Pentanone	ND	14
cis-1,3-Dichloropropene	ND	6.8
Toluene	ND	6.8
trans-1,3-Dichloropropene	ND	6.8
1,1,2-Trichloroethane	ND	6.8
2-Hexanone	ND	14
1,3-Dichloropropane	ND	6.8
Tetrachloroethene	ND	6.8

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-7	Diln Fac:	1.355
Lab ID:	246805-007	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Dibromochloromethane	ND	6.8
1,2-Dibromoethane	ND	6.8
Chlorobenzene	ND	6.8
1,1,1,2-Tetrachloroethane	ND	6.8
Ethylbenzene	ND	6.8
m,p-Xylenes	ND	6.8
o-Xylene	ND	6.8
Styrene	ND	6.8
Bromoform	ND	6.8
Isopropylbenzene	ND	6.8
1,1,2,2-Tetrachloroethane	ND	6.8
1,2,3-Trichloropropane	ND	6.8
Propylbenzene	ND	6.8
Bromobenzene	ND	6.8
1,3,5-Trimethylbenzene	ND	6.8
2-Chlorotoluene	ND	6.8
4-Chlorotoluene	ND	6.8
tert-Butylbenzene	ND	6.8
1,2,4-Trimethylbenzene	ND	6.8
sec-Butylbenzene	ND	6.8
para-Isopropyl Toluene	ND	6.8
1,3-Dichlorobenzene	ND	6.8
1,4-Dichlorobenzene	ND	6.8
n-Butylbenzene	ND	6.8
1,2-Dichlorobenzene	ND	6.8
1,2-Dibromo-3-Chloropropane	ND	6.8
1,2,4-Trichlorobenzene	ND	6.8
Hexachlorobutadiene	ND	6.8
Naphthalene	ND	6.8
1,2,3-Trichlorobenzene	ND	6.8

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-124
1,2-Dichloroethane-d4	100	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	105	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-8	Diln Fac:	1.416
Lab ID:	246805-008	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Freon 12	ND	14
Chloromethane	ND	14
Vinyl Chloride	ND	14
Bromomethane	ND	14
Chloroethane	ND	14
Trichlorofluoromethane	ND	7.1
Acetone	ND	28
Freon 113	ND	7.1
1,1-Dichloroethene	ND	7.1
Methylene Chloride	ND	28
Carbon Disulfide	ND	7.1
MTBE	ND	7.1
trans-1,2-Dichloroethene	ND	7.1
Vinyl Acetate	ND	71
1,1-Dichloroethane	ND	7.1
2-Butanone	ND	14
cis-1,2-Dichloroethene	ND	7.1
2,2-Dichloropropane	ND	7.1
Chloroform	ND	7.1
Bromochloromethane	ND	7.1
1,1,1-Trichloroethane	ND	7.1
1,1-Dichloropropene	ND	7.1
Carbon Tetrachloride	ND	7.1
1,2-Dichloroethane	ND	7.1
Benzene	ND	7.1
Trichloroethene	ND	7.1
1,2-Dichloropropane	ND	7.1
Bromodichloromethane	ND	7.1
Dibromomethane	ND	7.1
4-Methyl-2-Pentanone	ND	14
cis-1,3-Dichloropropene	ND	7.1
Toluene	ND	7.1
trans-1,3-Dichloropropene	ND	7.1
1,1,2-Trichloroethane	ND	7.1
2-Hexanone	ND	14
1,3-Dichloropropane	ND	7.1
Tetrachloroethene	ND	7.1

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	S-8	Diln Fac:	1.416
Lab ID:	246805-008	Batch#:	200467
Matrix:	Soil	Sampled:	07/09/13
Units:	ug/Kg	Received:	07/09/13
Basis:	as received	Analyzed:	07/10/13

Analyte	Result	RL
Dibromochloromethane	ND	7.1
1,2-Dibromoethane	ND	7.1
Chlorobenzene	ND	7.1
1,1,1,2-Tetrachloroethane	ND	7.1
Ethylbenzene	ND	7.1
m,p-Xylenes	ND	7.1
o-Xylene	ND	7.1
Styrene	ND	7.1
Bromoform	ND	7.1
Isopropylbenzene	ND	7.1
1,1,2,2-Tetrachloroethane	ND	7.1
1,2,3-Trichloropropane	ND	7.1
Propylbenzene	ND	7.1
Bromobenzene	ND	7.1
1,3,5-Trimethylbenzene	ND	7.1
2-Chlorotoluene	ND	7.1
4-Chlorotoluene	ND	7.1
tert-Butylbenzene	ND	7.1
1,2,4-Trimethylbenzene	ND	7.1
sec-Butylbenzene	ND	7.1
para-Isopropyl Toluene	ND	7.1
1,3-Dichlorobenzene	ND	7.1
1,4-Dichlorobenzene	ND	7.1
n-Butylbenzene	ND	7.1
1,2-Dichlorobenzene	ND	7.1
1,2-Dibromo-3-Chloropropane	ND	7.1
1,2,4-Trichlorobenzene	ND	7.1
Hexachlorobutadiene	ND	7.1
Naphthalene	ND	7.1
1,2,3-Trichlorobenzene	ND	7.1

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-124
1,2-Dichloroethane-d4	104	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	102	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	200467
Units:	ug/Kg	Analyzed:	07/09/13
Diln Fac:	1.000		

Type: BS Lab ID: QC696856

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.56	102	67-132
Benzene	25.00	25.59	102	77-126
Trichloroethene	25.00	25.90	104	76-127
Toluene	25.00	26.33	105	76-124
Chlorobenzene	25.00	24.69	99	76-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-124
1,2-Dichloroethane-d4	97	80-137
Toluene-d8	97	80-120
Bromofluorobenzene	99	79-127

Type: BSD Lab ID: QC696857

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	20.80	83	67-132	21	27
Benzene	25.00	22.44	90	77-126	13	20
Trichloroethene	25.00	23.28	93	76-127	11	22
Toluene	25.00	22.81	91	76-124	14	26
Chlorobenzene	25.00	21.84	87	76-120	12	21

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-124
1,2-Dichloroethane-d4	95	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	101	79-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC696990	Batch#:	200467
Matrix:	Soil	Analyzed:	07/09/13
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC696990	Batch#:	200467
Matrix:	Soil	Analyzed:	07/09/13
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-124
1,2-Dichloroethane-d4	100	80-137
Toluene-d8	93	80-120
Bromofluorobenzene	98	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	200467
MSS Lab ID:	246802-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Analyzed:	07/09/13
Basis:	as received		

Type: MS Diln Fac: 0.9091
Lab ID: QC696991

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<1.166	45.46	43.32	95	52-132
Benzene	<0.6322	45.46	43.40	95	54-121
Trichloroethene	<0.6825	45.46	42.35	93	46-138
Toluene	<0.4255	45.46	40.39	89	47-120
Chlorobenzene	<0.3215	45.46	35.16	77	41-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-124
1,2-Dichloroethane-d4	106	80-137
Toluene-d8	98	80-120
Bromofluorobenzene	109	79-127

Type: MSD Diln Fac: 0.9042
Lab ID: QC696992

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	45.21	39.69	88	52-132	8	46
Benzene	45.21	38.80	86	54-121	11	43
Trichloroethene	45.21	39.44	87	46-138	7	50
Toluene	45.21	40.03	89	47-120	0	53
Chlorobenzene	45.21	33.14	73	41-120	5	50

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-124
1,2-Dichloroethane-d4	100	80-137
Toluene-d8	105	80-120
Bromofluorobenzene	106	79-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC697050	Batch#:	200512
Matrix:	Soil	Analyzed:	07/10/13
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC697050	Batch#:	200512
Matrix:	Soil	Analyzed:	07/10/13
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-124
1,2-Dichloroethane-d4	91	80-137
Toluene-d8	112	80-120
Bromofluorobenzene	100	79-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	200512
Units:	ug/Kg	Analyzed:	07/10/13
Diln Fac:	1.000		

Type: BS Lab ID: QC697051

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	23.49	117	67-132
Benzene	20.00	23.32	117	77-126
Trichloroethene	20.00	19.18	96	76-127
Toluene	20.00	20.02	100	76-124
Chlorobenzene	20.00	20.67	103	76-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-124
1,2-Dichloroethane-d4	92	80-137
Toluene-d8	104	80-120
Bromofluorobenzene	97	79-127

Type: BSD Lab ID: QC697052

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	22.32	112	67-132	5	27
Benzene	20.00	21.98	110	77-126	6	20
Trichloroethene	20.00	18.44	92	76-127	4	22
Toluene	20.00	19.69	98	76-124	2	26
Chlorobenzene	20.00	20.46	102	76-120	1	21

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-124
1,2-Dichloroethane-d4	91	80-137
Toluene-d8	105	80-120
Bromofluorobenzene	97	79-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	200512
MSS Lab ID:	246834-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/10/13
Units:	ug/Kg	Analyzed:	07/11/13
Basis:	as received		

Type: MS Diln Fac: 0.9276
Lab ID: QC697053

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.8143	46.38	46.15	99	52-132
Benzene	<0.7819	46.38	45.58	98	54-121
Trichloroethene	<0.7237	46.38	48.56	105	46-138
Toluene	<0.6164	46.38	39.47	85	47-120
Chlorobenzene	<0.5945	46.38	40.69	88	41-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-124
1,2-Dichloroethane-d4	99	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	91	79-127

Type: MSD Diln Fac: 0.9653
Lab ID: QC697054

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	48.26	44.43	92	52-132	8	46
Benzene	48.26	40.87	85	54-121	15	43
Trichloroethene	48.26	45.55	94	46-138	10	50
Toluene	48.26	41.32	86	47-120	1	53
Chlorobenzene	48.26	36.63	76	41-120	14	50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-124
1,2-Dichloroethane-d4	94	80-137
Toluene-d8	111	80-120
Bromofluorobenzene	92	79-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-1	Batch#:	200489
Lab ID:	246805-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	660
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,600
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	66
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	66
Hexachlorocyclopentadiene	ND	660
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	660
Dimethylphthalate	ND	330
Acenaphthylene	ND	66
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	660
Acenaphthene	ND	66
2,4-Dinitrophenol	ND	660
4-Nitrophenol	ND	660
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	66
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	660
4,6-Dinitro-2-methylphenol	ND	660
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-1	Batch#:	200489
Lab ID:	246805-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	66
Pyrene	ND	66
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	660
Benzo(a)anthracene	ND	66
Chrysene	ND	66
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	66
Benzo(k)fluoranthene	ND	66
Benzo(a)pyrene	ND	66
Indeno(1,2,3-cd)pyrene	ND	66
Dibenz(a,h)anthracene	ND	66
Benzo(g,h,i)perylene	ND	66

Surrogate	%REC	Limits
2-Fluorophenol	78	35-120
Phenol-d5	76	39-120
2,4,6-Tribromophenol	79	39-120
Nitrobenzene-d5	72	49-120
2-Fluorobiphenyl	76	52-120
Terphenyl-d14	78	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-2	Batch#:	200489
Lab ID:	246805-002	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	67
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	670
Dimethylphthalate	ND	340
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	340

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-2	Batch#:	200489
Lab ID:	246805-002	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	67
Pyrene	ND	67
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	58	35-120
Phenol-d5	62	39-120
2,4,6-Tribromophenol	73	39-120
Nitrobenzene-d5	66	49-120
2-Fluorobiphenyl	61	52-120
Terphenyl-d14	70	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-3	Batch#:	200489
Lab ID:	246805-003	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	680
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	68
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	68
Hexachlorocyclopentadiene	ND	680
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	680
Dimethylphthalate	ND	340
Acenaphthylene	ND	68
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	680
Acenaphthene	ND	68
2,4-Dinitrophenol	ND	680
4-Nitrophenol	ND	680
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	68
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	680
4,6-Dinitro-2-methylphenol	ND	680
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	680
Phenanthrene	ND	68
Anthracene	ND	68
Di-n-butylphthalate	ND	340

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-3	Batch#:	200489
Lab ID:	246805-003	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	68
Pyrene	ND	68
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	680
Benzo(a)anthracene	ND	68
Chrysene	ND	68
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	68
Benzo(k)fluoranthene	ND	68
Benzo(a)pyrene	ND	68
Indeno(1,2,3-cd)pyrene	ND	68
Dibenz(a,h)anthracene	ND	68
Benzo(g,h,i)perylene	ND	68

Surrogate	%REC	Limits
2-Fluorophenol	77	35-120
Phenol-d5	73	39-120
2,4,6-Tribromophenol	77	39-120
Nitrobenzene-d5	71	49-120
2-Fluorobiphenyl	77	52-120
Terphenyl-d14	77	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-4	Batch#:	200489
Lab ID:	246805-004	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	660
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,600
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	66
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	66
Hexachlorocyclopentadiene	ND	660
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	660
Dimethylphthalate	ND	330
Acenaphthylene	ND	66
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	660
Acenaphthene	ND	66
2,4-Dinitrophenol	ND	660
4-Nitrophenol	ND	660
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	66
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	660
4,6-Dinitro-2-methylphenol	ND	660
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-4	Batch#:	200489
Lab ID:	246805-004	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	66
Pyrene	ND	66
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	660
Benzo(a)anthracene	ND	66
Chrysene	ND	66
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	66
Benzo(k)fluoranthene	ND	66
Benzo(a)pyrene	ND	66
Indeno(1,2,3-cd)pyrene	ND	66
Dibenz(a,h)anthracene	ND	66
Benzo(g,h,i)perylene	ND	66

Surrogate	%REC	Limits
2-Fluorophenol	65	35-120
Phenol-d5	69	39-120
2,4,6-Tribromophenol	74	39-120
Nitrobenzene-d5	72	49-120
2-Fluorobiphenyl	69	52-120
Terphenyl-d14	77	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-5	Batch#:	200489
Lab ID:	246805-005	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	67
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	670
Dimethylphthalate	ND	330
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-5	Batch#:	200489
Lab ID:	246805-005	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	67
Pyrene	ND	67
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	86	35-120
Phenol-d5	85	39-120
2,4,6-Tribromophenol	81	39-120
Nitrobenzene-d5	81	49-120
2-Fluorobiphenyl	87	52-120
Terphenyl-d14	78	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-6	Batch#:	200489
Lab ID:	246805-006	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	67
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	670
Dimethylphthalate	ND	340
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	340

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-6	Batch#:	200489
Lab ID:	246805-006	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	67
Pyrene	ND	67
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	68	35-120
Phenol-d5	71	39-120
2,4,6-Tribromophenol	85	39-120
Nitrobenzene-d5	77	49-120
2-Fluorobiphenyl	71	52-120
Terphenyl-d14	81	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-7	Batch#:	200489
Lab ID:	246805-007	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	67
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	670
Dimethylphthalate	ND	340
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	340

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-7	Batch#:	200489
Lab ID:	246805-007	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	67
Pyrene	ND	67
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	79	35-120
Phenol-d5	77	39-120
2,4,6-Tribromophenol	72	39-120
Nitrobenzene-d5	74	49-120
2-Fluorobiphenyl	79	52-120
Terphenyl-d14	73	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-8	Batch#:	200489
Lab ID:	246805-008	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	680
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	68
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	68
Hexachlorocyclopentadiene	ND	680
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	680
Dimethylphthalate	ND	340
Acenaphthylene	ND	68
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	680
Acenaphthene	ND	68
2,4-Dinitrophenol	ND	680
4-Nitrophenol	ND	680
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	68
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	680
4,6-Dinitro-2-methylphenol	ND	680
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	680
Phenanthrene	ND	68
Anthracene	ND	68
Di-n-butylphthalate	ND	340

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	S-8	Batch#:	200489
Lab ID:	246805-008	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	ND	68
Pyrene	ND	68
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	680
Benzo(a)anthracene	ND	68
Chrysene	ND	68
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	68
Benzo(k)fluoranthene	ND	68
Benzo(a)pyrene	ND	68
Indeno(1,2,3-cd)pyrene	ND	68
Dibenz(a,h)anthracene	ND	68
Benzo(g,h,i)perylene	ND	68

Surrogate	%REC	Limits
2-Fluorophenol	91	35-120
Phenol-d5	90	39-120
2,4,6-Tribromophenol	89	39-120
Nitrobenzene-d5	86	49-120
2-Fluorobiphenyl	90	52-120
Terphenyl-d14	84	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Dil'n Fac:	1.000
Lab ID:	QC696939	Batch#:	200489
Matrix:	Soil	Prepared:	07/09/13
Units:	ug/Kg	Analyzed:	07/10/13

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	67
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	670
Dimethylphthalate	ND	340
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	340
Fluoranthene	ND	67

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC696939	Batch#:	200489
Matrix:	Soil	Prepared:	07/09/13
Units:	ug/Kg	Analyzed:	07/10/13

Analyte	Result	RL
Pyrene	ND	67
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	80	35-120
Phenol-d5	79	39-120
2,4,6-Tribromophenol	87	39-120
Nitrobenzene-d5	78	49-120
2-Fluorobiphenyl	78	52-120
Terphenyl-d14	78	48-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC696940	Batch#:	200489
Matrix:	Soil	Prepared:	07/09/13
Units:	ug/Kg	Analyzed:	07/10/13

Analyte	Spiked	Result	%REC	Limits
Phenol	2,660	1,599	60	48-120
2-Chlorophenol	2,660	1,683	63	51-120
1,4-Dichlorobenzene	2,660	2,020	76	54-120
N-Nitroso-di-n-propylamine	2,660	1,681	63	35-120
1,2,4-Trichlorobenzene	2,660	2,093	79	56-120
4-Chloro-3-methylphenol	2,660	2,310	87	61-120
Acenaphthene	997.3	788.1	79	57-120
4-Nitrophenol	2,660	2,157	81	54-120
2,4-Dinitrotoluene	2,660	2,155	81	58-120
Pentachlorophenol	2,660	2,001	75	42-120
Pyrene	997.3	771.9	77	60-120

Surrogate	%REC	Limits
2-Fluorophenol	66	35-120
Phenol-d5	59	39-120
2,4,6-Tribromophenol	95	39-120
Nitrobenzene-d5	75	49-120
2-Fluorobiphenyl	67	52-120
Terphenyl-d14	76	48-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	200489
MSS Lab ID:	246911-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	2.000		

Type: MS Lab ID: QC696941

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<7.157	2,683	2,431	91	51-120
2-Chlorophenol	<7.451	2,683	2,441	91	52-120
1,4-Dichlorobenzene	<7.801	2,683	2,311	86	55-120
N-Nitroso-di-n-propylamine	<7.966	2,683	2,806	105	45-120
1,2,4-Trichlorobenzene	<7.994	2,683	2,393	89	57-120
4-Chloro-3-methylphenol	<8.440	2,683	2,493	93	60-120
Acenaphthene	<8.311	1,006	979.4	97	58-120
4-Nitrophenol	<72.18	2,683	2,358	88	49-120
2,4-Dinitrotoluene	<9.742	2,683	2,577	96	58-120
Pentachlorophenol	<129.5	2,683	1,416	53	23-120
Pyrene	<11.04	1,006	1,055	105	53-122

Surrogate	%REC	Limits
2-Fluorophenol	90	35-120
Phenol-d5	92	39-120
2,4,6-Tribromophenol	84	39-120
Nitrobenzene-d5	82	49-120
2-Fluorobiphenyl	93	52-120
Terphenyl-d14	91	48-120

Type: MSD Lab ID: QC696942

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,671	1,925	72	51-120	23	32
2-Chlorophenol	2,671	1,938	73	52-120	23	32
1,4-Dichlorobenzene	2,671	1,844	69	55-120	22	35
N-Nitroso-di-n-propylamine	2,671	2,177	81	45-120	25	35
1,2,4-Trichlorobenzene	2,671	1,887	71	57-120	23	31
4-Chloro-3-methylphenol	2,671	1,851	69	60-120	29	30
Acenaphthene	1,002	727.8	73	58-120	29	36
4-Nitrophenol	2,671	1,676	63	49-120	33	39
2,4-Dinitrotoluene	2,671	1,878	70	58-120	31 *	28
Pentachlorophenol	2,671	402.7	15 *	23-120	111 *	47
Pyrene	1,002	769.0	77	53-122	31	44

Surrogate	%REC	Limits
2-Fluorophenol	70	35-120
Phenol-d5	72	39-120
2,4,6-Tribromophenol	57	39-120
Nitrobenzene-d5	64	49-120
2-Fluorobiphenyl	73	52-120
Terphenyl-d14	66	48-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-1	Batch#:	200469
Lab ID:	246805-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND #	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	9.2 C	1.7
gamma-Chlordane	5.7	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	94	45-129
Decachlorobiphenyl	86	32-132

#= CCV drift outside limits; average CCV drift within limits per method requirements
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-2	Batch#:	200469
Lab ID:	246805-002	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND #	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	87	45-129
Decachlorobiphenyl	82	32-132

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-3	Batch#:	200469
Lab ID:	246805-003	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	3.1	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	4.3 C	3.3
Endrin aldehyde	ND #	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	64	1.7
gamma-Chlordane	44	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	88	45-129
Decachlorobiphenyl	75	32-132

#= CCV drift outside limits; average CCV drift within limits per method requirements
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-4	Batch#:	200469
Lab ID:	246805-004	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	1.8 C	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	72	45-129
Decachlorobiphenyl	77	32-132

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-5	Batch#:	200469
Lab ID:	246805-005	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	5.3	1.7
gamma-Chlordane	6.8 C	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	80	45-129
Decachlorobiphenyl	81	32-132

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-6	Batch#:	200469
Lab ID:	246805-006	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	76	45-129
Decachlorobiphenyl	71	32-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-7	Batch#:	200469
Lab ID:	246805-007	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	20	1.7
gamma-Chlordane	14	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	74	45-129
Decachlorobiphenyl	78	32-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	S-8	Batch#:	200469
Lab ID:	246805-008	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	6.6 C	1.7
gamma-Chlordane	4.0	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	90	45-129
Decachlorobiphenyl	77	32-132

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC696860	Batch#:	200469
Matrix:	Soil	Prepared:	07/09/13
Units:	ug/Kg	Analyzed:	07/09/13

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND #	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	92	45-129
Decachlorobiphenyl	88	32-132

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC696861	Batch#:	200469
Matrix:	Soil	Prepared:	07/09/13
Units:	ug/Kg	Analyzed:	07/09/13

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.35	11.56	87	49-120
Heptachlor	13.35	13.70	103	44-121
Aldrin	13.35	11.22	84	53-120
Dieldrin	26.70	23.43	88	42-141
Endrin	26.70	23.71	89	45-137
4,4'-DDT	26.70	20.46 #	77	37-142

Surrogate	%REC	Limits
TCMX	90	45-129
Decachlorobiphenyl	82	32-132

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	200469
MSS Lab ID:	246742-074	Sampled:	07/05/13
Matrix:	Soil	Received:	07/05/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Type: MS Lab ID: QC696862

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2162	13.38	13.34	100	47-130
Heptachlor	<0.1917	13.38	15.34	115	39-137
Aldrin	0.3781	13.38	15.06	110	44-140
Dieldrin	1.089	26.76	30.59 #	110	45-146
Endrin	<0.5606	26.76	29.14	109	45-146
4,4'-DDT	<0.4734	26.76	25.63 #	96	30-151

Surrogate	%REC	Limits
TCMX	107	45-129
Decachlorobiphenyl	80	32-132

Type: MSD Lab ID: QC696863

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	13.35	13.72	103	47-130	3	38
Heptachlor	13.35	14.71	110	39-137	4	47
Aldrin	13.35	14.66	107	44-140	2	44
Dieldrin	26.70	30.44 #	110	45-146	0	37
Endrin	26.70	29.04	109	45-146	0	42
4,4'-DDT	26.70	25.34 #	95	30-151	1	47

Surrogate	%REC	Limits
TCMX	105	45-129
Decachlorobiphenyl	79	32-132

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	200470
Units:	ug/Kg	Sampled:	07/09/13
Basis:	as received	Received:	07/09/13
Diln Fac:	1.000	Prepared:	07/09/13

Field ID: S-1 Lab ID: 246805-001
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	87	66-142
Decachlorobiphenyl	87	43-139

Field ID: S-2 Lab ID: 246805-002
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	90	66-142
Decachlorobiphenyl	89	43-139

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	200470
Units:	ug/Kg	Sampled:	07/09/13
Basis:	as received	Received:	07/09/13
Diln Fac:	1.000	Prepared:	07/09/13

Field ID: S-3 Lab ID: 246805-003
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	97	66-142
Decachlorobiphenyl	89	43-139

Field ID: S-4 Lab ID: 246805-004
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	92	66-142
Decachlorobiphenyl	84	43-139

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	200470
Units:	ug/Kg	Sampled:	07/09/13
Basis:	as received	Received:	07/09/13
Diln Fac:	1.000	Prepared:	07/09/13

Field ID: S-5 Lab ID: 246805-005
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	93	66-142
Decachlorobiphenyl	61	43-139

Field ID: S-6 Lab ID: 246805-006
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	90	66-142
Decachlorobiphenyl	80	43-139

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	200470
Units:	ug/Kg	Sampled:	07/09/13
Basis:	as received	Received:	07/09/13
Diln Fac:	1.000	Prepared:	07/09/13

Field ID: S-7 Lab ID: 246805-007
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	90	66-142
Decachlorobiphenyl	76	43-139

Field ID: S-8 Lab ID: 246805-008
Type: SAMPLE Analyzed: 07/10/13

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	93	66-142
Decachlorobiphenyl	76	43-139

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	200470
Units:	ug/Kg	Sampled:	07/09/13
Basis:	as received	Received:	07/09/13
Diln Fac:	1.000	Prepared:	07/09/13

Type:	BLANK	Analyzed:	07/09/13
Lab ID:	QC696864		

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12
Aroclor-1262	ND	12
Aroclor-1268	ND	12

Surrogate	%REC	Limits
TCMX	92	66-142
Decachlorobiphenyl	103	43-139

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC696865	Batch#:	200470
Matrix:	Soil	Prepared:	07/09/13
Units:	ug/Kg	Analyzed:	07/09/13

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	166.7	160.9	97	64-143
Aroclor-1260	166.7	203.1	122	58-146

Surrogate	%REC	Limits
TCMX	98	66-142
Decachlorobiphenyl	104	43-139

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	200470
MSS Lab ID:	246766-001	Sampled:	07/08/13
Matrix:	Soil	Received:	07/08/13
Units:	ug/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/09/13
Diln Fac:	1.000		

Type: MS Lab ID: QC696866

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<0.3868	164.7	159.9	97	58-155
Aroclor-1260	<0.8756	164.7	198.9	121	35-159

Surrogate	%REC	Limits
TCMX	101	66-142
Decachlorobiphenyl	89	43-139

Type: MSD Lab ID: QC696867

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	167.1	175.3	105	58-155	8	44
Aroclor-1260	167.1	201.6	121	35-159	0	53

Surrogate	%REC	Limits
TCMX	104	66-142
Decachlorobiphenyl	92	43-139

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-1	Diln Fac:	1.000
Lab ID:	246805-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.51	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	3.3	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	150	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.44	0.10	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	0.38	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	30	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	8.5	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	12	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	5.7	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.065	0.016	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	31	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	ND	0.51	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.51	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	30	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	46	1.0	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-2	Diln Fac:	1.000
Lab ID:	246805-002	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.52	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	3.6	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	140	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	0.33	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	26	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	5.8	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	11	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	5.2	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	ND	0.018	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	27	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	ND	0.52	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.52	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	29	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	32	1.0	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-3	Diln Fac:	1.000
Lab ID:	246805-003	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.53	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	3.4	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	150	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.44	0.11	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	ND	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	31	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	7.2	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	13	0.28	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	12	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.077	0.017	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	33	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	ND	0.53	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.53	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	33	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	45	1.1	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-4	Diln Fac:	1.000
Lab ID:	246805-004	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.52	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	2.5	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	150	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	24	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	7.0	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	11	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	5.9	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.024	0.018	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	26	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	ND	0.52	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.52	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	33	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	34	1.0	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-5	Diln Fac:	1.000
Lab ID:	246805-005	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	0.55	0.46	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	2.0	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	110	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.37	0.092	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	ND	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	19	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	7.6	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	11	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	26	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.039	0.017	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	18	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	1.3	0.46	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.46	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	51	0.23	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	52	0.92	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-6	Diln Fac:	1.000
Lab ID:	246805-006	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.49	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	7.4	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	170	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.52	0.097	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	36	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	8.7	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	18	0.25	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	7.1	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.028	0.016	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	39	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	0.98	0.49	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.49	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	42	0.24	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	48	0.97	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-7	Diln Fac:	1.000
Lab ID:	246805-007	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.53	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	5.3	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	160	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.51	0.11	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	0.28	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	33	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	7.8	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	18	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	6.1	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.033	0.017	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	34	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	ND	0.53	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.53	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	35	0.26	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	47	1.1	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	246805	Project#:	STANDARD
Client:	The DirtMarket	Location:	1960 Main Street
Field ID:	S-8	Diln Fac:	1.000
Lab ID:	246805-008	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.54	200493	07/09/13	EPA 3050B	EPA 6010B
Arsenic	3.5	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Barium	160	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Beryllium	0.45	0.11	200493	07/09/13	EPA 3050B	EPA 6010B
Cadmium	ND	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Chromium	25	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Cobalt	7.2	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Copper	10	0.28	200493	07/09/13	EPA 3050B	EPA 6010B
Lead	7.9	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Mercury	0.023	0.017	200520	07/10/13	METHOD	EPA 7471A
Molybdenum	ND	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Nickel	29	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Selenium	ND	0.54	200493	07/09/13	EPA 3050B	EPA 6010B
Silver	ND	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Thallium	ND	0.54	200493	07/09/13	EPA 3050B	EPA 6010B
Vanadium	36	0.27	200493	07/09/13	EPA 3050B	EPA 6010B
Zinc	36	1.1	200493	07/09/13	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC696958	Batch#:	200493
Matrix:	Soil	Prepared:	07/09/13
Units:	mg/Kg	Analyzed:	07/10/13

Analyte	Result	RL
Antimony	ND	0.50
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.26
Lead	ND	0.25
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	0.50
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	200493
Units:	mg/Kg	Prepared:	07/09/13
Diln Fac:	1.000	Analyzed:	07/10/13

Type: BS Lab ID: QC696959

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	103.3	103	80-120
Arsenic	50.00	53.22	106	80-120
Barium	100.0	103.8	104	80-120
Beryllium	2.500	2.619	105	80-120
Cadmium	10.00	10.48	105	80-120
Chromium	100.0	101.0	101	80-120
Cobalt	25.00	25.24	101	80-120
Copper	12.50	12.25	98	80-120
Lead	100.0	98.13	98	80-120
Molybdenum	20.00	20.82	104	80-120
Nickel	25.00	25.47	102	80-120
Selenium	50.00	52.23	104	80-120
Silver	10.00	9.009	90	80-120
Thallium	50.00	51.60	103	80-120
Vanadium	25.00	25.27	101	80-120
Zinc	25.00	25.74	103	80-120

Type: BSD Lab ID: QC696960

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	101.6	102	80-120	2	20
Arsenic	50.00	52.53	105	80-120	1	20
Barium	100.0	102.2	102	80-120	2	20
Beryllium	2.500	2.621	105	80-120	0	20
Cadmium	10.00	10.52	105	80-120	0	20
Chromium	100.0	100.5	101	80-120	0	20
Cobalt	25.00	25.19	101	80-120	0	20
Copper	12.50	12.27	98	80-120	0	20
Lead	100.0	99.51	100	80-120	1	22
Molybdenum	20.00	20.31	102	80-120	2	20
Nickel	25.00	25.55	102	80-120	0	20
Selenium	50.00	50.95	102	80-120	2	20
Silver	10.00	8.965	90	80-120	0	20
Thallium	50.00	50.65	101	80-120	2	20
Vanadium	25.00	25.19	101	80-120	0	20
Zinc	25.00	25.76	103	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	200493
MSS Lab ID:	246691-001	Sampled:	07/02/13
Matrix:	Miscell.	Received:	07/02/13
Units:	mg/Kg	Prepared:	07/09/13
Basis:	as received	Analyzed:	07/10/13
Diln Fac:	1.000		

Type: MS Lab ID: QC696961

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.4395	100.0	26.50	26	8-120
Arsenic	<0.09120	50.00	42.63	85	71-121
Barium	26.30	100.0	114.6	88	48-133
Beryllium	0.05907	2.500	2.323	91	78-120
Cadmium	<0.01756	10.00	7.903	79	69-120
Chromium	165.2	100.0	267.2	102	60-122
Cobalt	27.59	25.00	46.83	77	61-120
Copper	86.43	12.50	101.1	117 NM	44-151
Lead	0.2163	100.0	76.53	76	52-120
Molybdenum	<0.06170	20.00	14.29	71	67-120
Nickel	82.33	25.00	105.1	91	45-134
Selenium	3.459	50.00	45.99	85	67-120
Silver	<0.08215	10.00	5.756	58 *	66-120
Thallium	<0.1792	50.00	28.76	58 *	62-120
Vanadium	145.5	25.00	177.0	126 NM	55-137
Zinc	70.00	25.00	84.02	56	38-146

Type: MSD Lab ID: QC696962

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	103.1	28.00	27	8-120	2	29
Arsenic	51.55	43.84	85	71-121	0	34
Barium	103.1	118.5	89	48-133	1	45
Beryllium	2.577	2.398	91	78-120	0	20
Cadmium	10.31	8.302	81	69-120	2	23
Chromium	103.1	284.5	116	60-122	5	34
Cobalt	25.77	48.83	82	61-120	3	37
Copper	12.89	109.3	178 NM	44-151	7	35
Lead	103.1	80.33	78	52-120	2	51
Molybdenum	20.62	15.11	73	67-120	3	20
Nickel	25.77	110.5	109	45-134	4	38
Selenium	51.55	46.83	84	67-120	1	27
Silver	10.31	5.757	56 *	66-120	3	30
Thallium	51.55	29.16	57 *	62-120	2	20
Vanadium	25.77	186.2	158 NM	55-137	5	30
Zinc	25.77	88.44	72	38-146	4	36

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Batch QC Report

California Title 22 Metals

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	200520
Lab ID:	QC697086	Prepared:	07/10/13
Matrix:	Soil	Analyzed:	07/10/13
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	200520
Matrix:	Soil	Prepared:	07/10/13
Units:	mg/Kg	Analyzed:	07/10/13
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC697087	0.2083	0.2208	106	80-120		
BSD	QC697088	0.2083	0.2220	107	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	246805	Location:	1960 Main Street
Client:	The DirtMarket	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	S-1	Batch#:	200520
MSS Lab ID:	246805-001	Sampled:	07/09/13
Matrix:	Soil	Received:	07/09/13
Units:	mg/Kg	Prepared:	07/10/13
Basis:	as received	Analyzed:	07/10/13

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC697089	0.06532	0.2016	0.2895	111	72-135		
MSD	QC697090		0.2083	0.3841	153 *	72-135	26	42

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Laboratory Job Number 246805

Subcontracted Products

Forensic Analytical

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Project Manager
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B179503
Date Received: 07/10/13
Date Analyzed: 07/10/13
Date Printed: 07/10/13
First Reported: 07/10/13

Job ID/Site: 246805 - 1960 Main Street

Date(s) Collected: 07/09/2013

FALI Job ID: 1137
Total Samples Submitted: 8
Total Samples Analyzed: 8

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
S-1	11400431						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-2	11400432						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-3	11400433						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-4	11400434						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-5	11400435						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-6	11400436						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-7	11400437						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
S-8	11400438						
Layer: Tan Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B179503

Client Name: Curtis & Tompkins Ltd **Date Printed:** 07/10/13

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218