Job No. 100-SBA-T36771

Site Investigation Work Plan
Village Park
15150 Illinois Avenue
Paramount, California 90723

Prepared for:

Mr. Chris Cash
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Prepared by:

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February 22, 2017

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1.0 INTRODUCTION

This Site Investigation (SI) Work Plan has been prepared by Tetra Tech, Inc. (Tetra Tech) and is being submitted to the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) on behalf of the City of Paramount (Paramount) for a site investigation at Village Park, 15150 Illinois Avenue, Paramount. The SI Work Plan is based on information presented by DTSC and the City of Paramount to Tetra Tech at the SI scoping meeting on January 11, 2017.

The Village Park site (hereinafter referred to as the Site) is an approximately 1.55 acres park owned by the City of Paramount that contains a concrete skateboard terrain park, a playground, public restrooms, sidewalks, and landscape and turf grass areas. The Site is located on the east side of Illinois Avenue at the intersection with Somerset Boulevard in the City of Paramount, California (Figures 1 and 2).

In response to concerns, the City of Paramount has entered into a Voluntary Cleanup Agreement (VCA) with DTSC. The purpose of VCA-16/17-063 is to investigate the potential release of metals onto park grounds through air emissions from Carlton Forge Works (CFW) and/or other potential sources. CFW has also been approached by DTSC to perform investigations of potential metals dust contamination in the neighborhood from their metals foundry work performed at 7743 Adams Street. CFW has operated on the adjacent property since 1928.

This SI Work Plan includes limited background and historical use information regarding the Site and previous investigations conducted for metals in the surrounding neighborhood by CFW. A more detailed summary of background and historical use information for the release of metals from CFW is presented in the *Final Work Plan to Collect and Evaluate Soil and Dust Samples in the Vicinity of Carlton Forge Works* (ToxStrategies 2014) (Final CFW Work Plan).

1.1 DESIGNATED CONTACT PERSONS

The primary designated contact persons for Tetra Tech are Randy Westhaus and Steve Dodson. Randy Westhaus is the Project Manager and Steve Dodson is the Project Geologist. Their contact information is:

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The DTSC Project Manager is Mr. Haissam Salloum. Mr. Salloum represents the DTSC Brownfields and Environmental Restoration Program from the Chatsworth Field Office. The contact information for Mr. Salloum is:

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2.0 SITE DATA

2.1 SITE LOCATION AND DESCRIPTION

The DTSC has requested that the City of Paramount investigate potential metals contamination in surface soil and the potential for elevated metals in dust at the Site. The Site is identified in the VCA as a 1.55 acres parcel with the Assessor's Parcel Number (APN) 6240-013-901, at Village Park in Paramount, California (Figures 1 and 2). The Site is bounded by Somerset Boulevard on the north, Illinois Avenue on the west, the Southern Pacific Railroad (SPRR) on the east and commercial properties to the south. The site contains concrete paved areas (a skateboard park, a basketball court, plazas, and sidewalks), a playground, a public restroom, and turf grass landscape areas. CFW, a specialty metal forging manufacturer is located east of the Site, immediately adjacent to the SPRR railroad alignment.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 GEOLOGY

The Site is located at the boundary between the Transverse Ranges and Peninsular Ranges geomorphic provinces. The Transverse Ranges geomorphic province is bounded by the Big Pine fault on the north, the San Andreas fault zone on the east, the Pacific Ocean on the west, and the Santa Monica, Hollywood, Raymond, Sierra Madre, and Cucamonga faults on the south. The province is characterized by west-trending mountain ranges that include the Santa Ynez, San Gabriel, San Bernardino, and Santa Monica Mountains, and associated valleys. The southern boundary of the Transverse Ranges province is coincident with the northern boundary of Peninsular Ranges province. In contrast to the Transverse Ranges province, the Peninsular Ranges geomorphic province is characterized by elongate northwest-trending mountain ridges separated by straight-sided sediment-filled valleys. This province is bounded by the San Jacinto fault zone on the east, the Pacific Ocean coastline on the west, and the Transverse Ranges geomorphic province on the north.

The Site is located on the north-central portion of the Downey Plain. The Downey Plain is part of the Coastal Plains of Los Angeles and is bounded on the west and southwest by the low-lying Baldwin, Rosecrans and Dominguez Hills, both surface expressions of the northwest trending Newport-Inglewood Fault Complex. The Site is bounded on the north and northeast by the Elysian, Repetto; and Merced Hills; on the east by the Puente and Coyote Hills; on the southeast by the Orange County Coastal Plain (CDWR, 2004).

Holocene alluvial deposits at the surface in the Site vicinity consist of homogeneous mixtures of fine sands, silty fine sand, silts, and clays (CDWR 2004). The Holocene alluvium extends to between 100 and 800 feet below ground surface (bgs) in the Downey Plain to overlie the Lakewood formation which consists of Pleistocene sand, clay, and conglomerate.

3.2 HYDROGEOLOGY

The Site is located within the Central Basin Pressure area of the Central Groundwater Basin. The Central Basin extends over most of the Coastal Plain of Los Angeles County east and northeast of the Newport-Inglewood uplift. Historically, the Central Basin is divided into four areas: the Los Angeles Forebay Area, the Montebello Forebay Area, the Whittier Area and the Central Basin Pressure Area (CDWR 2004). The Central Basin pressure area is the largest of the four divisions, and contains many aquifers of permeable sands and gravels separated by semi-permeable to impermeable sandy clay to clay, that extend to about 2,200 feet bgs (CDWR 2004).

Local shallow groundwater is reportedly approximately 27 feet bgs, according to a Leaking Underground Storage Tank Assessment report for a property located one block west of the Site (Alta EM 2013). This shallow groundwater zone is above the Gaspar Aquifer, which occurs locally at a depth of approximately 125 feet bgs.

4.0 SITE BACKGROUND

In response to concerns, the City of Paramount has entered into VCA-16/17-063 with DTSC. The purpose of the VCA is to investigate the potential release of metals onto park grounds through air emissions from CFW and/or other potential sources. CFW has also been approached by DTSC to perform investigations of potential metals dust contamination in the neighborhood from their metals foundry work performed at 7743 Adams Street. CFW has operated on the adjacent property since 1928.

Operations at CFW started at 7743 Adams Street and expanded first to the north and then to the south over time (ToxStrategies 2015). CFW produces seamless rolled rings and open die forgings for the aerospace, gas turbine, industrial, commercial, and nuclear industries using carbon and alloy steels, aluminum, titanium, nickel, cobalt, chromium and other high temperature metals. In addition to heating the metals, the alloys may be ground in preparation for forging, to meet final specifications, or for repairs. Grinding generates metal dust at 25 grinding booths in the grind building; emissions from these operations are captured in baghouses to recover more than 97.5 percent of metals dust emissions.

In 2014, CFW's consultants, Iris Environmental, Inc. (Iris) and ToxStrategies, Inc. (ToxStrategies) conducted historical reviews, interviews, aerial photograph reviews, and collected soil and dusts samples in the vicinity of CFW. The majority of sample locations focused on downwind neighborhood areas south and east of the property.

5.0 SAMPLING PLAN

Based on the January 11, 2017 SI scoping meeting between DTSC, the City of Paramount, and Tetra Tech, the following media require assessment:

1. Surface soil in turf grass landscape and playground areas of the Site; and

2. Dust on pavement areas of the Site.

This SI Work Plan describes the procedures for performing the collection of surface soil and dust samples at the Site. The sample analytical scope presented in this SI Work Plan was developed in consultation with the DTSC Project Manager on January 11, 2017.

5.1 SAMPLING STRATEGY AND APPROACH

The soil and dust sampling will be conducted during the same mobilization. The following subsections describe the rationale and scope of sampling for each item of environmental concern identified for the Site.

5.1.1 Surface Soil Assessment Sampling Rationale and Strategy

Tetra Tech will collect surface soil samples at eight locations at the Site (VPS-1 through VPS-8) as shown on Figure 2. Table 1 shows the proposed sampling schedule for surface soil sampling at locations VPS-1 through VPS-8. These eight sample locations are intended to evaluate potential deposition of metals-laden dust into surface soil of the Site from CFW, immediately to the east.

5.1.2 Dust Sampling Rationale and Strategy

Tetra Tech will collect dust samples at five paved locations at the Site (VPD-1 through VPD-5) as shown on Figure 2. Table 1 shows the proposed sampling schedule for dust sampling at locations VPD-1 through VPS-5. These five sample locations are intended to evaluate potential deposition of metals-laden dust into paved surfaces at the Site from CFW, immediately to the east.

5.2 SAMPLING METHODS AND PROCEDURES

This section describes the methods and procedures that will be used to collect and analyze soil and dust samples collected from the Site. The sample collection methods proposed here follow methodology that was approved by DTSC for the collection and analysis of soil and dust samples in the neighborhood surrounding CFW to ensure that data are comparable to those collected for that investigation (ToxStrategies 2014).

5.2.1 Surface Soil Sampling

Surface soil samples will be collected from eight locations on the Site (VPS-1 through VPS-8, shown on Table 1 and Figure 2). Surface soil samples will be collected with a hand-driven split-spoon sampler into stainless steel sleeves which will be sealed with Teflon sheets and end caps and by stainless steel trowel directly into pre-cleaned glass sample containers fitted with Teflon-lined screw-caps. Soil from the top 0.25-foot of soil will be collected to evaluate variability in the soil interval that would most likely be impacted by dust deposition (surface to 1-inch, 1- to 3-inches). Tetra Tech proposes to remove the turf grass to eliminate vegetative matter from the surface sample. The surface to 1-inch samples will then be collected using a stainless steel trowel into glass jars for laboratory submittal. The subsequent 1- to 3-inch samples will be collected using a split spoon sampler. The end caps of each 1- to 3-inch sample will be labeled to indicate the

top and bottom of each sample, so that the laboratory can remove the aliquot for analysis from the top of the sample sleeve. All soil sampling equipment will be decontaminated before use and between samples via a three-step process using an Alconox™ detergent and tap water wash, a tap water rinse, and a final deionized water rinse.

The 0 to 1-inch and 1- to 3-inches soil samples will be selected for analysis on the Chain of Custody (COC). The samples will be labeled and placed in an ice chest containing pre-cooled artificial ice pending delivery to the analytical laboratory with COC records.

A second volume of soil will be collected at one location to perform a matrix spike/matrix spike duplicate analysis (10% of samples) to evaluate precision and accuracy of the sample collection and analysis process. DTSC has requested split samples of soil (30 percent). Three split soil samples will be collected for DTSC by collecting the samples from an adjacent boring to increase sample volume. The samples will be homogenized in the field, and the split samples will be transferred to DTSC for shipment to their designated laboratory.

5.2.2 Dust Sampling

Dust samples will be collected at five locations at the Site (VPD-1 through VPD-5 shown on Table 1 and Figure 2). Prior to collecting each sample, an area up to 60 square-feet will be designated using a clean tape measure. The dimensions will vary depending on the area of the space available for sampling and the amount of dust present at each location.

Each dust sample will be collected using EnviroCare Micro Filtration™ vacuum bags fitted inside a Eureka Mighty Mite™ canister vacuum. This vacuum is specified by the manufacturer to have a minimum 99.7% filtration capacity. Sample areas will include a variety paved areas (Skateboard terrain area, basketball court, sidewalks, drainage gutter, and concrete hardscapes). Dust samples will be collected using the vacuum cleaner with a hose and a 12-inch wide attachment bar. The vacuum filter bags are specific by the manufacturer to be more than 99% efficient at screening particles to a diameter of 1 micron. At least 50 grams of particulates will be needed to conduct the required analyses. A scale will be used to determine the tare weights of empty vacuum cleaner bags prior to sample collection. Tare weights will be recorded in the field notes and on the chain-of-custody (COC). After vacuuming the sample area, the sample bag will be re-weighed (inside a new resealable plastic bag) to assess whether an adequate dust mass has been collected. If at least 50 grams are not collected with the first collection run, the sample area will be expanded to collect an adequate sample mass for analysis.

The vacuum filter bags will be removed from the vacuum and placed directly into 4-ounce glass jars. Each sample jar will be labeled with a unique identifier indicating the sample location. The samples will be labeled and placed in an ice chest containing pre-cooled artificial ice pending delivery to the analytical laboratory with COC records.

To reduce the potential for cross-contamination between samples, a separate decontamination vacuum bag will be used prior to collection of each dust sample. A fresh, unused vacuum bag will be placed into the vacuum, and the vacuum will be run for 5 minutes to purge the dust from the unit. During this time the vacuum hose will be agitated to promote residual dust removal. The vacuum will then be wiped down with a clean paper towel wetted with deionized water to remove any remaining dust from the surface and interior vacuum bag area.

A second volume of dust will be collected at one location to perform a matrix spike/matrix spike duplicate analysis (10% of samples) to evaluate precision and accuracy of the sample collection and analysis process. DTSC has requested two split samples of dust. For split samples, twice the volume of dust will be collected at one time.

5.2.3 Soil and Dust Analysis Methods

Soil and dust samples will be sent to American Environmental Testing Laboratory, Inc. (AETL) in Burbank, California, on a standard turn-around with Level III data validation reporting. All soil and dust samples will be analyzed for CAM 17 metals via EPA Methods 6020B/7470A and for manganese, tin, and titanium via EPA method 6010B. Soil and dust samples will also be analyzed for hexavalent chromium via EPA Method 3060A/7199.

Dust samples will be prepared by first being passed through a #60 mesh to remove particles greater than 0.25 millimeter (mm) in diameter. Thus, only those particles smaller than 0.25 mm will be analyzed by AETL.

5.2.4 Field Procedures

The surface soil sample consistency will be logged using the Unified Soil Classification System (USCS) as defined in the ASTM methods D 2487-90 (ASTM 1990a) and D 2488-90 (ASTM 1990b). The soil samples will be evaluated in the field for staining and odor. The samples will be labeled and placed in an ice chest containing pre-cooled artificial ice pending delivery to the analytical laboratory with chain-of-custody (COC) records. Instructions will be included on the COCs directing the laboratory on sample preparation and analysis requirements. Soil samples will be relinquished to a courier and delivered to an off-site laboratory operated by AETL in Burbank, California for analyses.

The following sampling information will be recorded on the field logs and notes: sample number and location, date and time, sample depth, lithologic description in accordance with the USCS (ASTM 1990a, 1990b), and description of any visible evidence of soil contamination (i.e., odor, staining). Photographs of each sample location will be taken prior to sample collection. Additional observations or directions from the DTSC Project Manager will also be documented in the daily field logs.

5.2.4.1 Decontamination and IDW Handling

Soil sampling equipment will be decontaminated before use and between sampling locations via a three-step process using an Alconox™ detergent and tap water wash, a tap water rinse, and a final deionized water rinse. Dust sampling equipment will be decontaminated as described in Section 5.2.2 using disposable wipes, and purging to minimize cross-contamination.

Used personal protective equipment, such as nitrile gloves and spent canister vacuum bags and disposable wipes used for decontamination of the dust sampling equipment will be bagged and disposed of as municipal waste.

Decontamination rinse water will be containerized and stored at the City of Paramount Public Works Yard and the Department of Public Works will arrange for final disposal. Sampling results from investigations by CFW show that soil cuttings do not contain metals at concentrations that would be classified as hazardous, therefore any residual soil cuttings generated by sampling procedures will be returned to the borings as backfill.

5.3 HEALTH AND SAFETY PLAN PREPARATION

A Site Specific Health and Safety Plan (SSHSP) will be prepared for the SI. The SSHSP is required by law to perform work at sites where workers may be exposed to hazardous waste and/or materials. Tetra Tech will prepare a SSHSP in accordance with Code of Federal Regulations (CFR) Section 1910.120, California Administrative Code (CAC), Title 8, and the Tetra Tech Corporate Health and Safety Manual (Tetra Tech 2011). The SSHSP will include a Site location map and a map showing the most direct route to the nearest emergency care center, the identity of the Site Health and Safety Officer, lists of the chemicals, materials,

equipment, and physical conditions that pose a threat or hazard, and the level of protection that will provide for proper worker safety. Proof of valid and current OSHA training certifications will be required for all Site workers. The SSHSP will also describe procedures and practices to be followed during field activities, including safety monitoring and field decontamination. All fieldwork will be performed in accordance with the SSHSP.

5.4 NOTIFICATION OF FIELD ACTIVITIES

Tetra Tech will notify DTSC at least seven days in advance of all field activities in accordance with the VCA. Tetra Tech will allow DTSC and its authorized representatives to take split samples of any samples collected by Tetra Tech.

5.5 SITE INVESTIGATION REPORT PREPARATION

Tetra Tech will prepare a SI Report describing the sampling activities performed at the Site, the data obtained during sampling, and an evaluation of the human health and environmental risk (if any) the Site may pose. The sampling data collected during the SI will be presented on plan view maps. The sampling data collected by CFW in 2014 (ToxStrategies 2015) will be included in the SI Report for comparison purposes. Previously developed CFW background concentrations by ToxStrategies (ToxStrategies 2015) will be included in the SI report. The background data will be used for comparison purposes with the data collected for this SI. Field notes from this SI will be included in the SI Report. A Draft and Final SI Report will be prepared. The Draft SI Report will be submitted to DTSC for review. Tetra Tech will revise the Draft SI Report based on the comments received from DTSC.

6.0 SCHEDULE

The proposed project schedule key milestones are as follows:

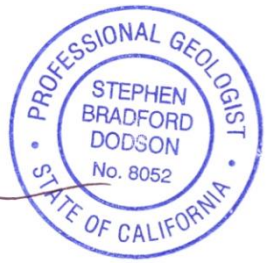
- Submit SI Work Plan to DTSC: January 31, 2017
- DTSC Approval of SI Work Plan February 24, 2017
- Conduct SI Field Work Week of February 27, 2017
- Submit Draft SI Report to DTSC March 24, 2017
- Receive DTSC Comments on Draft SI Report March 31, 2017
- Submit Final SI Report to DTSC April 7, 2017
- DTSC Approve Final SI Report April 12, 2017

7.0 CERTIFICATION

None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings of fact from records examined.

Respectfully submitted,

TETRA TECH, INC.



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Expiration Date January 31, 2018

Randy W. Westhaus, P.E.
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Expiration Date September 30, 2017

8.0 REFERENCES

Alta EM, Inc. (Alta)

2013 *Site Assessment Report 708 E. Somerset Blvd., Paramount California Case No. R-02715/Global ID T0603758692.* June.

American Society for Testing and Materials (ASTM)

1990a *Designation D 2487 - 90, Standard Test Method for Classification of Soils for Engineering Purposes.*

American Society for Testing and Materials (ASTM)

1990b *Designation D 2488 - 90, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).*

California Department of Water Resources (CDWR).

2004 *California's Groundwater, Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin.* Bulletin No. 118. February.

ToxStrategies, Inc.

2014 *Final Work Plan to Collect and Evaluate Soil and Dust Samples in the Vicinity of Carlton Forge Works.* December.

ToxStrategies, Inc.

2015 *Summary Results for Soil And Dust Samples Collected in the Vicinity of Carlton Forge Works.* March.

FIGURES

Legend

★ Site Location

N
W E
S

0 0.5 1 2 Miles

Data sources: ESRI, Tetra Tech.

Village Park
Paramount, California

Site Location
Village Park

15150 Illinois Avenue
Paramount, CA 90723

TETRA TECH
5383 Hollister Avenue
Suite 130
Santa Barbara, CA 93111

TC NO.	DATE	DRAWN BY	MAP NO.	FIGURE
36771	1/25/2017	REYNOLDS	9870	1

Legend

Project Boundary

Sample Type

- Surface Soil Sample
- Dust Sample

N
W E
S

0 25 50 100 Feet

Background courtesy of ESRI World Imagery Service.

Village Park
Paramount, California

Proposed Sample Locations
Village Park

15150 Illinois Avenue
Paramount, CA 90723

TETRA TECH
5383 Hollister Avenue
Suite 130
Santa Barbara, CA 93111

TC NO.	DATE	DRAWN BY	MAP NO.	FIGURE
36771	1/25/2017	REYNOLDS	9871	2

TABLES

Table 1
Proposed Soil Sampling Schedule
Village Park Site Investigation
Paramount, California

Sample Location[1]	Sample ID	Sample Depth (inches bgs)	Medium	Analysis	Sample Type	Rationale
VPS-1	VPS-1-0-SP	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived. Proposed Split Location 1.	Metals evaluation on surface soil.
	VPS-1-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-2	VPS-2-0	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
	SoilDup1	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Matrix Spike/Spike Duplicate Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
	VPS-2-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-3	VPS-3-0	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
	VPS-3-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-4	VPS-4-0-SP	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived. Proposed Spilt Location 2.	Metals evaluation on surface soil.

Table 1
Proposed Soil Sampling Schedule
Village Park Site Investigation
Paramount, California

Sample Location[1]	Sample ID	Sample Depth (inches bgs)	Medium	Analysis	Sample Type	Rationale
	VPS-4-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-5	VPS-5-0	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
	VPS-5-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-6	VPS-6-0	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
	VPS-6-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-7	VPS-7-0-SP	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived. Proposed Split Location 3.	Metals evaluation on surface soil.
	VPS-7-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPS-8	VPS-8-0	0–1	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.

Table 1
Proposed Soil Sampling Schedule
Village Park Site Investigation
Paramount, California

Sample Location[1]	Sample ID	Sample Depth (inches bgs)	Medium	Analysis	Sample Type	Rationale
	VPS-8-1	1–3	Surface soil	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation on surface soil.
VPD-1	VPD-1-0	Surface	Dust	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation of surface dust.
VPD-2	VPD-2-0	Surface	Dust	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation of surface dust.
	DustDup1	Surface	Dust	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Matrix Spike/SpikeDuplicate Analysis. Extra sample volume will be archived.	Metals evaluation of surface dust.
VPD-3	VPD-3-0-SP	Surface	Dust	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived. Proposed Split Location 4.	Metals evaluation of surface dust.
VPD-4	VPD-4-0-SP	Surface	Dust	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived. Proposed Split Location 5.	Metals evaluation of surface dust.
VPD-5	VPD-5-0	Surface	Dust	EPA methods 6020 and 7471A for Title 22 metals[2]. EPA method 6010B for manganese, tin, and titanium. EPA method 7199 for hexavalent chromium.	Normal Analysis. Extra sample volume will be archived.	Metals evaluation of surface dust.

Table 1
Proposed Soil Sampling Schedule
Village Park Site Investigation
Paramount, California

Notes:

1 - The sample locations are shown on Figure 2.

2 - Title 22 Metals are antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc.

bgs - below ground surface

CAM - California Assessment Method as defined in California Code of Regulations Title 22

EPA - U. S. Environmental Protection Agency

Table 2
Summary of Analyses and Proposed Detection Limits
Village Park Site Investigation
Paramount, California

ANALYTE	MDL	PQL	UNITS	LOWER CONTROL LIMIT %	UPPER CONTROL LIMIT %	RELATIVE PERCENT DIFFERENCE LIMIT
TTLC Metals by Method 6020B/7471A						
Container: *Clear Wide Mouth Glass, Teflon Lined Cap* ***Amount Required:*** *120 grams soil / 50 grams dust*						
Preservation: *Cool, 4°C* ***Holding Time:*** *6 months, 28 days for Hg*						
Antimony	0.25	0.5	mg/Kg	75	125	15
Arsenic	0.10	0.5	mg/Kg	75	125	15
Barium	0.25	0.5	mg/Kg	75	125	15
Beryllium	0.10	0.25	mg/Kg	75	125	15
Cadmium	0.10	0.25	mg/Kg	75	125	15
Chromium	0.25	0.5	mg/Kg	75	125	15
Cobalt	0.25	0.5	mg/Kg	75	125	15
Copper	0.25	0.5	mg/Kg	75	125	15
Lead	0.25	0.5	mg/Kg	75	125	15
Mercury by 7471A	0.003	0.006	mg/Kg	75	125	15
Molybdenum	0.25	0.5	mg/Kg	75	125	15
Nickel	0.25	0.5	mg/Kg	75	125	15
Selenium	0.25	0.5	mg/Kg	75	125	15
Silver	0.25	0.5	mg/Kg	75	125	15
Thallium	0.10	0.25	mg/Kg	75	125	15
Vanadium	0.25	0.5	mg/Kg	75	125	15
Zinc	0.25	0.5	mg/Kg	75	125	15
TTLC Metals by Method 6010B						
Container: *Clear Wide Mouth Glass, Teflon Lined Cap* ***Amount Required:*** *120 grams soil / 50 grams dust*						
Preservation: *Cool, 4°C* ***Holding Time:*** *6 months, and 28 days for Hg.*						
Manganese	1.0	5.0	mg/Kg	75	125	15
Tin	2.5	5.0	mg/Kg	75	125	15
Titanium	1.0	2.5	mg/Kg	75	125	15
Method EPA 7199						
Container: *Clear Wide Mouth Glass, Teflon Lined Cap* ***Amount Required:*** *120 grams soil / 50 grams dust*						
Preservation: *Cool, 4°C* ***Holding Time:*** *Extraction: 1 month, Analysis: 70 Hours*						
Hexavalent Chromium	0.10	0.20	mg/Kg	75	125	20

American Environmental Testing Laboratory, Inc. detection limits for 7199 as of February 7, 2017, all other methods as of February 22, 2017.