

**Appendix F – Property Specific Letter of Completion (template)**

# INSERT YOUR LOGO HERE

Date: [Date]

To: Hortensia Muniz, P.E.  
California Department of Toxic Substances Control  
8810 Cal Center Drive  
Sacramento, California 95826-3200

	[Signature and stamp]	[Signature and stamp]
From:	[Name], [P.X.] [Job Title] [XX] Registration No. [X]-[XXXXX]	[Name] Lead-Certified Industrial Hygienist [License Information]
Subject:	Letter of Completion for [Address], [Property ID], [APN]	

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## EXECUTIVE SUMMARY

This Letter of Completion (LOC) documents the cleanup activities that were completed at the above referenced property (hereafter, the Property). The Property location and surrounding area are shown on Figure 1.

**CONTRACTOR NAME (XXX)** completed the cleanup in accordance with the Department of Toxic Substances Control's (DTSC's) approved plans.<sup>1</sup> The cleanup activities were implemented as part of the cleanup of sensitive land use properties with lead-impacted soil within the Preliminary Investigation Area (PIA). The PIA is the area within an approximately 1.7-mile radius of the former Exide Technologies, Inc. (Exide) lead-acid battery recycling facility, located in Vernon, California (hereafter, the "former Exide facility").

The selection of the soil target cleanup goal conservatively assumes that the exposure pathways represent the potential for ingestion, inhalation, and direct contact with soil by sensitive individuals under a residential exposure land use scenario. As concluded by HERO Note 3 (DTSC, 2019a), a soil lead concentration of 80 ppm or less in a residential land use will be protective of all residents including children and women of childbearing age.

**CONTRACTOR NAME**, in coordination with DTSC, used the analytical results from sampling events to determine the depths and areas to be excavated. The excavated areas were restored by backfilling with clean soil and landscaping materials selected by the Property Owner. A post-cleanup evaluation was conducted to assess the representative soil lead concentration in surface soils from 0 to 18 inches below ground surface (bgs). The post-cleanup representative soil lead concentration at the Property is [#] ppm<sup>2</sup>, which **[achieves/does not achieve]** the cleanup goal of a representative soil lead concentration of 80 ppm. **[If the Property has a residual soil lead concentration above 80 ppm insert <**The excavated areas have been backfilled with soil that will act as a barrier

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<sup>1</sup> Removal Action Plan (Cleanup Plan) – Offsite Properties within the Exide Preliminary Investigation Area (Cleanup Plan)(DTSC, 2017a), the Amended Master Excavation, Disposal, and Restoration Design Plan (Work Plan)(DTSC, 2018b), and the Property-Specific Excavation, Disposal, and Restoration Design Plan for the Property (Property Plan) (Attachment A).

<sup>2</sup> Parts per million (ppm) and milligrams per kilogram (mg/kg) are equivalent units in soil.

and prevent the ingestion, inhalation and direct contact to the elevated concentrations of lead. This Property may be evaluated further in the future.>]

## 1.0 INTRODUCTION

This LOC documents the cleanup activities that were completed at the Property, including confirmation sampling results and comparison to DTSC's cleanup goal, written and tabular summary of disposal activities, the results of restoration activities, and any difficulties encountered during the cleanup work. This LOC also includes a post-cleanup evaluation for the Property.

### 1.1 PROPERTY DESCRIPTION AND HISTORY

This Property is located within the PIA (Figure 1). Activities conducted between 1922 and March 2014 at the former Exide facility likely resulted in the release of lead that contaminated properties within the PIA. Prior sampling at the Property identified representative lead concentrations in the surface soils that exceeded DTSC's Residential Soil Screening Level of 80 ppm.

### 1.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

This Property was initially sampled as [PROPERTY ID] on [DATE] (see Attachment I-1 for sampling report data). The representative soil lead concentration<sup>3</sup> for lead in surface soil (0 to 3 inches bgs) at the Property using initial sampling data was [#] ppm (Attachment I-1)<sup>4</sup>, and the maximum laboratory concentration was [#] ppm, which met the prioritization criteria<sup>5</sup> in DTSC's July 2017 Cleanup Plan. *(If Property had surface soil concentrations exceeding the screening levels for other metals (see list)).* In addition, the initial samples collected for prioritization were also analyzed for the following metals: arsenic<sup>6</sup>, antimony<sup>7</sup>, cadmium<sup>8</sup>, copper<sup>9</sup> and zinc<sup>10</sup>. Using laboratory data, [metal(s) name] [was/were] found at a maximum concentration of [#] ppm at a depth of [#] inches bgs, which exceeded the DTSC Residential Soil Screening Level of [#] ppm for [metal(s) name].

### 1.3 EXCAVATION, DISPOSAL, AND RESTORATION DESIGN PLAN

Prior to the start of excavation activities, pre-excavation confirmation soil sampling activities were conducted to determine the depth of excavation (Table 1, Figure 2) by [other CONTRACTOR name (if not the same contractor)]. A Pre-construction Meeting was conducted by CONTRACTOR's NAME representative with the Property Owner or their representative to discuss the work to be conducted, including designating work areas

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<sup>3</sup> A representative soil lead concentration is determined by the 95 percent upper confidence limit (UCL) of the mean lead concentration in soil. If a minimum of 8 samples were not collected, the representative soil lead concentration is based on the maximum concentration.

<sup>4</sup> Use EQuIS database as applicable

<sup>5</sup> Residential properties with a representative soil lead concentration of 400 ppm or higher or where any soil sampling result of 1,000 ppm or higher was detected were prioritized for cleanup in this phase.

<sup>6</sup> Arsenic background concentration memo (DTSC, 2018d)

<sup>7</sup> Antimony (Sb), 31 ppm, per United States EPA Region 9 Regional Screening Level

<sup>8</sup> Cadmium (Cd), 5.2 ppm, California HERO Human Health Risk Assessment Note 3

<sup>9</sup> Copper (Cu), 3,100 ppm, United States EPA Region 9 Regional Screening Level

<sup>10</sup> Zinc (Zn), 23,000 ppm, United States EPA Region 9 Regional Screening Level

(exclusion zone) which were restricted to authorized personnel only (Figure 5). The Property Owner or their representative selected their desired landscape finish option at the Pre-construction Meeting (Figure 6). Confirmation soil sample analytical data was also provided to DTSC for its evaluation of the proposed excavation and approval of the final Property Plan (Attachment A). The representative soil lead concentration using USEPA-approved Pro-UCL for each depth ([12-15 inches bgs and 18-21 inches bgs] were calculated. The depth meeting the representative soil lead concentration of 80 ppm, or the maximum depth allowed in the Work Plan, was used to establish the excavations depth(s) and included in the Proposed Excavation Plan (Figure 3), which was approved by DTSC.

#### **1.4 HEALTH AND SAFETY PLAN**

All work conducted at the Property was in accordance with the Project Safety, Health and Environment Plan (Cleanup Plan, Appendix E), and **CONTRACTOR NAME's** Health and Safety Plan for the project ([**CONTRACTOR**], 2018).

#### **2.0 PUBLIC PARTICIPATION**

The Property Owner signed an access agreement granting access for cleanup activities to be conducted at the Property (Attachment A). Owners and tenants of neighboring properties were made aware of the upcoming excavation, disposal, and restoration activities by posted signage (Attachment B). During cleanup, a sign displaying appropriate contact information was placed at the front of the Property as well as areas within the line of sight of the activities. Contact information included a hotline concerned parties could call to obtain more information. The hotline was staffed between 8:00 AM and 5:00 PM by a bilingual representative who collected caller information and forwarded any inquiries to DTSC representatives. The project stakeholders for this work include the following: the Property Owner, residents of the Property and adjoining properties, DTSC, the Contractor and its subcontractors, and the local government.

#### **3.0 PROPERTY PREPARATION ACTIVITIES**

During the Pre-construction Meeting, DTSC and **CONTRACTOR NAME's representative** staff discussed with the Property Owner the schedule, activities to be completed, protection of Property fixtures, relocation needs, and Property Owner preference regarding the final surface restoration of the Property. **CONTRACTOR NAME's representative** informed DTSC staff of the anticipated timeframe, and that information was relayed to the Property Owner by DTSC. **CONTRACTOR NAME's representative** and DTSC staff presented the Property Owner with restoration options including but not limited to: sod, lava rock, decomposed granite, mulch, and sustainable landscaping. The Property Owner or their representative selected their desired landscape finish option at this meeting (Figure 6).

#### **3.1 MAPPING OF EXCAVATION AREAS**

The excavation limits were established based on pre-excavation confirmation sampling (Figure 3). The work zones were established prior to the start of excavation and restricted to authorized personnel only (Figure 5).

### 3.2 UTILITY SURVEY

In accordance with State of California requirements, **CONTRACTOR NAME** notified Underground Service Alert (USA) prior to excavation operations (Attachment C). This was done to identify gas, drainage, electrical, communications, and sanitary sewer lines, as well as any other subsurface features, and to mark their locations. Underground utilities were exposed by hand digging as an additional safety precaution. Areas within approximately six (6) inches of underground utilities were not disturbed to prevent damage to the appurtenances.

### 3.3 PERMITS, NOTIFICATIONS, AND DOCUMENTATION

Work was performed in accordance with applicable local, state, and federal regulations as well as DTSC's approved plans.<sup>11</sup> See Attachment C for USA notification, required permits, and California Department of Public Health (CDPH) Abatement of Lead Hazards Evaluation Notification Form 8551 and Lead Hazard Evaluation Report 8552. **[No construction-related damage was done to the City's property / Construction-related damage was done to the City's property and repaired on DATE.]**

### 4.0 PLANNED EXCAVATION ACTIVITIES

The laboratory results from the initial sampling conducted for prioritization and the pre-excavation confirmation samples *[were used, modify accordingly]* to confirm and establish the boundaries of the excavation. The target excavation depth was established using the representative soil lead concentration from the pre-excavation confirmation samples collected (Figure 3, Table 1a and Attachment A). **[discuss decision units if they were used at the property]**

#### 4.1 PROPERTY CLEARING AND DEBRIS REMOVAL

**[Describe activities relating to Property clearing and debris removal, including whether the Property Owner had to remove possessions from the anticipated work area, whether plants or shrubs below 4 feet in height were removed, and whether planted areas were present and, if so, the measurements for those areas.]**

#### 4.2 ACTUAL EXCAVATION ACTIVITIES

**[All open windows, air vents, doorways or potential air pathways entering the Property were sealed with plastic sheeting as an additional measure to ensure no fugitive dust would enter the residence. Plastic sheeting was placed on the ground as needed to prevent spilled waste from contacting the ground surface. After cleanup activities were completed, all equipment operating on the Property was cleaned over the plastic sheeting using dry decontamination methods. Vacuums equipped with HEPA filters were used daily to clean areas surrounding the excavation and construction travel areas. Decontamination containers were clearly marked to identify the wash and rinse containers to be used. To avoid potential cross-contamination, rinse**

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<sup>11</sup> Mitigation Monitoring and Reporting Program, Greenhouse Gas Emissions Reduction Plan, Noise Mitigation Plan Transportation Plan, (DTSC, 2017a); and [jurisdiction name] Specific Traffic Management.

**water was placed on the excavated soil being temporarily staged prior to transport to the disposal facility and was not applied to any of the open excavations.]**

Daily logs of the field activities are included in Attachment D. See Figure 4 and Table 2 for excavation depths and quantities of lead-impacted soil removed. Excavation activities did not include the removal of lead-impacted soils from beneath or inside existing inaccessible or permanent features (e.g., structures, roads, sidewalks, brick patios, and driveways).

#### **4.3 EXCAVATED SOIL MANAGEMENT**

**CONTRACTOR NAME** prepared a Local and Long-Distance Transportation Map (Figure 7 and 8) to outline the route of transport of contaminated soil to the pre-approved landfill. All wastes generated during cleanup activities were transported to a Treatment, Storage, and Disposal Facility (TSDF) operating under appropriate permits and in accordance with applicable regulations. All trucks traveled on approved streets identified in the Transportation Plan and the Traffic Management Plans and were labeled during transport activities to be distinguishable from other trucks in the area. Waste manifests and weight tickets are provided in Attachment E.

#### **4.4 BEST MANAGEMENT PRACTICES**

Best management practices (BMPs) were used to prevent storm water run-on and run-off; minimize, reduce, avoid or mitigate noise and vibrations during cleanup activities; and prevent the idling of diesel-fueled commercial vehicles for more than 5 minutes.

#### **4.5 AIR AND DUST MONITORING**

Fugitive dust control and air monitoring was performed to comply with federal, state, and local air quality regulations (South Coast Air Quality Management District (SCAQMD) Rules 403 and/or 1466) for dust emissions, as well as DTSC's Work Plan; which require application of specific measures during all earth-moving operations.

Air monitoring was performed during soil excavation and backfilling activities in accordance section 6.3 of the Work Plan using real-time particulate monitors. **[Results of air monitoring and air quality standard are presented in Tables 5a ,5b and Attachment M.]**

These results were compared with California's Ambient Air Quality Standards (CAAQS) and the United States Environmental Protection Agency (USEPA) for particulate matter measuring 10 microns in diameter (PM10). Both standards pertain to PM10 emissions occurring over a 24-hour period. On an approximately hourly basis, the real-time monitoring data was evaluated by the field staff. When the difference (delta) between the upwind monitor and downwind monitors appeared to be above the allowable threshold, the work was stopped, and dust suppression measures were immediately put in place to minimize dust emission. The lead supervisor was (*if applicable*) notified of the results, potential emission source(s) were investigated, and engineering controls (i.e., wet methods, HEPA-vacuuming, work practice modifications, etc.) were implemented to control dust.

**[If Enhanced Area Air Monitoring was done AT THE DOORWAY, insert the following:]**

In addition, area air samples were collected from the entry (doorway) to the residence using 37-millimeter cassettes with filters attached to a battery-powered sampling pump. The area monitoring results were

supplemented with data from PAM cassettes that were worn by construction staff during excavation of lead impacted soil. The PAM cassettes were submitted to a fixed laboratory for lead analysis. Laboratory analytical results for the PAM cassettes are included in Attachment M2. In summary, these sample results indicated that during excavation activities the property **[did not / did]** have detectable levels of airborne lead. **[PAM as Table 5b]**

#### 4.6 PROPERTY RESTORATION AND BACKFILLING ACTIVITIES

After the excavation, backfill, and any necessary compaction activities were completed, excavated areas were restored to conditions previously agreed upon with the Property Owner. A signed copy of the Property Owner-approved landscaping plan is included in Attachment A and backfill volume Table 2.

##### 4.6.1 Backfill Details

The sources of backfill were inspected and samples were analyzed for the presence of chemicals before being brought to the Property. Backfill samples were analyzed for **[NOTE: Not all apply. It depends on the source. asbestos, pH, Title 22 metals, and volatile organic compounds (VOCs) and any other analyses]**. Analytical results showed that all parameters were at or below concentrations identified in DTSC's Clean Imported Fill Material Guidance (DTSC, 2001). Relevant data and documentation pertaining to backfill materials used on the Property are presented in Table 2, Table 3, and Attachment K.

##### 4.6.2 Property Restoration Details

Backfill was placed in approximately 6-inch lifts and then moderately compacted. **[Compaction testing was not conducted in the excavation area since it was not required OR Compaction testing of the backfill was performed due to XXX. Compaction testing documentation is included in Attachment N.]** Upon completion of the backfill and restoration activities, a DTSC representative conducted a meeting with the Property Owner and obtained a signed Property Closeout Form (Attachment F).

#### 4.7 SURVEYING ACTIVITIES

**[If necessary, say:** A post-excavation survey was conducted under the direction of a California-licensed surveyor or qualified civil engineer in Section 3.1, above to document the final Property grade. Data is presented as Attachment N. **Otherwise, say:** A post-excavation survey was not required.]

#### 5.0 DATA INTERPRETATION

Laboratory analytical results from the **[initial soil samples, only if applicable]** pre-excavation, and post-excavation confirmation soil samples were used to calculate a post-excavation representative soil lead concentration **[and [metal(s) name]]** at the bottom of the excavation. (Figure 2, Table 1 **and 1a**).

#### 5.1 LABORATORY ANALYSIS

Pre-excavation and post-excavation confirmation soil samples were collected from the Property following the procedures in the Work Plan, provided to the laboratory on ice and intact with appropriate labels and matching

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chain of custody (Attachment I) and analyzed in accordance with USEPA Method 6010B for lead [and [metal(s) name]].

## 5.2 EVALUATION OF CONFIRMATION SAMPLE RESULTS

**[If collected include:]** Post-excavation confirmation samples were collected at the bottom of the excavation in selected areas where the targeted excavation depth could not be achieved due to field conditions. The representative soil lead concentration for the bottom of excavation is [#] ppm (Table 1 and Attachment H), which [achieves/does not achieve] the cleanup goal of 80 ppm for lead.

**[For additional metals use DTSC RSSL] (If Property had surface soil concentrations exceeding the screening levels for other metals (see list)).** DTSC Residential Soil Screening Levels for arsenic, antimony, cadmium, copper, and zinc were not exceeded in pre-excavation confirmation samples. [metal results exceeded the DTSC Residential Soil Screening Level.]

The representative soil [metal(s) name] concentration for the bottom of excavation based on pre-excavation [and post-excavation] confirmation samples is [#] ppm (Attachment H), which [achieves/does not achieve] the cleanup goal of [XXX] ppm for [metal(s) name]].

## 5.3 QUALITY ASSURANCE AND QUALITY CONTROL EVALUATION

Quality Control Samples were collected in accordance with the Quality Assurance Project Plan (QAPP) (DTSC, 2018c). All Laboratory data was validated in accordance with the QAPP, and the validation memorandum is attached (see Attachment J).

## 6.0 WASTE CHARACTERIZATION AND DISPOSAL

Waste soil sample(s) were collected during the sampling event at the Property following procedures in the Work Plan and provided to the laboratory on ice and intact with appropriate labels and matching chain of custody (see Table 4 and Attachment L).

### 6.1 LABORATORY ANALYSIS

**NOTE: The analysis and thus the text may differ from one LOC to another** [A composite waste soil sample was collected from the Property following procedures in the Work Plan and was analyzed using USEPA Method 6010B for lead including Total Threshold Concentration (TTL), Soluble Threshold Limit Concentration (STLC), and Toxicity Characteristic Leaching Procedure (TCLP); USEPA Method 6010B for antimony, zinc, copper, cadmium, and arsenic; USEPA Method 8015 for gasoline and diesel range organics; USEPA Method 9071B for Hexane Extractable Material (HEM); and USEPA Method 8260B for volatile organic compounds (VOCs)]. [And any other required analyses].

### 6.2 DISPOSAL

Prior to transporting waste soil to the landfill, **CONTRACTOR NAME** obtained the facility's approval. Attachment L includes the approval documentation from the disposal facility for the Property. Waste manifests and weight

tickets are provided in Attachment E. The soil was transported from the Property with a completed manifest and other wastes (such as plastic sheeting and decontamination water). The soil loading and off-haul routes are designated in the Transportation Plan (Figure 7 & 8 (as applicable)).

## 7.0 FIELD VARIANCES

The following were field variances from the approved Work Plan and Property Plan: **[Describe any difficulties or unexpected conditions encountered, and any deviations from applicable approved plans.] Example(s) of frequent field variances,**

- *Eight (8) samples locations were not collected because [describe what prevented the collection of 8 samples.]*
- *Initial sample results used for prioritization [were/were not, select as applicable] used to confirm or establish the boundaries of the excavation.*
- *The excavation depth of 12 or 18 inches bgs was not achieved in [describe area] because [describe what prevented the targeted depth from being achieved].*
- *An underground feature was encountered at..., if applicable.*
- *The property owner requested..., if applicable.*
- *Field work was conducted outside of the permits and/or CDPH Notification dates due to scheduling conflicts, if applicable.*
- *Post confirmation samples [were/ were not collected, describe, if applicable].*

## 8.0 POST-CLEANUP EVALUATION

Following completion of the cleanup activities at the Property, a post-excavation evaluation was conducted to assess the residual lead concentrations remaining in surface soils (0 to 18 inches bgs) at the Property. The data for soil remaining at the property, collected during all investigations (i.e., **initial sampling**, pre-excavation confirmation sampling and post-excavation confirmation sampling) were used to calculate a post-cleanup representative soil lead concentration. **[NOTE: IF initial samples are used, it must be explained]**

A statistical summary of the data set is included in Table 1. **[If the Property has a residual soil lead concentration above the cleanup goal: A maximum concentration of [maximum concentration] ppm remains at a depth of [depth] inches bgs [describe sample location(s) and why excavation in this area was limited.]**

## 9.0 SUMMARY AND CONCLUSIONS

The activities conducted at the Property were carried out in accordance with the Cleanup Plan, Work Plan, and Property Plan. Lead-impacted soil was excavated and transported to mitigate the threat posed to public health and the environment by the presence of elevated concentrations of lead in the accessible surface soils. The excavated areas were based on the concentrations of lead found in the soil and the accessibility of the soil for excavation.

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**[If the cleanup goal was achieved, insert]** The representative soil lead concentration<sup>12</sup> remaining in surface soils (0 to 18 inches bgs) is [#] ppm (Attachment H), which achieves the cleanup goal of 80 ppm.

**[If the cleanup goal was not achieved, insert the following:]** Excavated areas have been backfilled with soil meeting the cleanup goal of 80 ppm. Below excavated areas, lead in soil remains. The representative soil lead concentration remaining in surface soils (0 to 18 inches bgs)<sup>13</sup> is [#] ppm (Table 1), which does not achieve the cleanup goal of 80 ppm. A maximum soil lead concentration of [maximum concentration] ppm remains at a depth of [depth] inches bgs [describe sample location(s) and why excavation in this area was limited].

**[If the screening goal for additional metals was achieved, insert]** In addition, the representative soil [metal name] concentration remaining in surface soils (0 to 18 inches bgs) is [#] ppm (Attachment H), which is below the screening level of [cleanup goal] ppm.>

**[If the screening threshold is exceeded for other metals]** In addition, [arsenic, antimony, cadmium, copper, or zinc [was/were] detected above the screening level [screening level included in foot notes] in surface soil [depth bgs]. The representative soil [metal-name] concentration for the bottom of excavation is [UCL for [metal-name]] A maximum concentration of [maximum concentration] ppm that remains at a depth of [depth] inches bgs [describe sample location(s) and why excavation in this area was limited].

**[Insert the following for all LOCs]**

The Property was backfilled and landscaped in accordance with the Property Owner's preferences. The backfill and landscaping materials will reduce the potential for ingestion, inhalation, and dermal or direct contact with any remaining lead [and (if present) metal-name]. **[If the cleanup goal was not achieved for lead or other metal insert]** This Property may be evaluated further in the future.

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<sup>12</sup> A representative soil lead concentration is determined by the 95 percent upper confidence limit (UCL) of the mean lead concentration in soil. If a minimum of 8 samples were not collected, the representative soil lead concentration is based on the maximum concentration.

<sup>13</sup> *The CONTRACTOR must use professional judgement to document the actual range of depth at which the representative soil lead concentration remaining in surface soils was calculated.*

## 10.0 REFERENCES

40 Code of Federal Regulations, Part 300.

Subpart E of the National Oil and Hazardous Substances Pollution Contingency Plan (40 C.F.R. § 300.400 et seq.), as amended (i.e., the National Contingency Plan or NCP).

California Code of Regulations, Title 22, Division 4.5

California Health and Safety Code, Division 20, Chapter 6.5, sections 25100 et seq.

California Health and Safety Code, Division 20, Chapter 6.8, sections 25300 et seq.

DTSC, 2001. Information Advisory for Clean Imported Fill Material. October.

DTSC, 2008. Proven Technologies and Remedies Guidance – Remediation of Metals in Soil. August 29.

DTSC, 2017a. Removal Action Plan (Cleanup Plan) – Offsite Properties within the Exide Preliminary Investigation Area. July.

DTSC, 2017b. Final Environmental Impact Report for Offsite Properties within the Exide Preliminary Investigation Area. July.

DTSC, 2018a. DTSC Temporary Relocation and Compensation Implementation Plan. March.

DTSC, 2018b. Amended Master Excavation, Disposal, and Restoration Design Plan. December.

DTSC, 2018c. Quality Assurance Project Plan (QAPP) for Sampling and Analysis Related to Cleanup Activities for Properties in the Vicinity of the Exide Facility (Vernon, California). May 24.

DTSC, 2018d. <https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/Background-Arsenic.pdf>

DTSC, 2019a. Human and Ecological Risk Office Human Health Risk Assessment, NOTE NUMBER 3.

DTSC, 2019b. Traffic Management Plan for County of Los Angeles, Offsite Properties within the Exide Preliminary Investigation Area. April 8, 2019

**CONTRACTOR ([XXX, INC. (XXX)]), 201X.** Exide Off-site Remediation Health and Safety Plan. **XXXXX**.

South Coast Air Quality Management District, 2005. Rule 403 – Fugitive Dust. June 3.

South Coast Air Quality Management District, 2017. Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants. July 7.

U.S. EPA, Office of Solid Waste, Communications, Information, and Resources Management Division, 1998. RCRA Orientation Manual, Subtitle C – Managing Hazardous Waste. May.

U.S. EPA Lead Sites Workgroup (LSW), 2003. Superfund Lead-Contaminated Residential Sites Handbook, August.

U.S. EPA, 2017. Regional Screening Levels (RSLs) – Generic Tables. November.

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6. RESTORATION PLAN
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[CONTRACTOR may combine with Figure 8 and make corresponding text changes]
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### TABLES

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3. SUMMARY OF BACKFILL MATERIAL ANALYTICAL RESULTS
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  - 5A. SITE MONITORING DATA
  - 5B. AIR MONITORING AT CLOSEST ENTRY POINT **(IF APPLICABLE)**

### ATTACHMENTS

- A. SITE ACCESS AGREEMENT & INITIAL VISIT EVALUATION & SIGNED LANDSCAPE RESTORATION PLAN & PROPERTY EXCAVATION, DISPOSAL AND RESTORATION DESIGN PLAN  
[If not available, CONTRACTOR to include the date they checked on EQUIS in the LOC tracker and include the following statement "NOT MADE AVAILABLE BY THE DATE DOCUMENT WAS FINALIZED"]
- B. PHOTO DOCUMENTATION
- C. PERMITS AND NOTIFICATIONS (DIG ALERT, ENCROACHMENT PERMITS & CDPH 8551 & 8552)
- D. DAILY FIELD LOGS
- E. WASTE MANIFESTS AND WEIGHT TICKETS
- F. PROJECT CLOSEOUT CHECKLIST  
[If not available, CONTRACTOR to include the date they checked on EQUIS in the LOC tracker and include the following statement "NOT MADE AVAILABLE BY THE DATE DOCUMENT WAS FINALIZED"]
- G. COMPENSATION ACKNOWLEDGEMENT AND RELOCATION FORM(S)  
[If not available, CONTRACTOR to include the date they checked on EQUIS in the LOC tracker and include the following statement "NOT MADE AVAILABLE BY THE DATE DOCUMENT WAS FINALIZED"]
- H. PROUCL INPUT AND OUTPUT  
**[H1. LEAD [IF APPLICABLE] AND [METAL-NAME]] [IF APPLICABLE]**
- I. SOIL SAMPLING LABORATORY DATA
  - I1. INITIAL SOIL SAMPLING DATA

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12. PRE-EXCAVATION CONFIRMATION SAMPLING DATA

13. POST-EXCAVATION CONFIRMATION SAMPLING DATA (IF APPLICABLE)

J. LABORATORY DATA VALIDATION REPORT

K. BACKFILL SOIL SAMPLING DATA AND APPROVAL

L. WASTE CHARACTERIZATION AND LANDFILL APPROVAL

M. AIR MONITORING DATA

N. POST-EXCAVATION SURVEY AND COMPACTION TESTING (IF APPLICABLE)

**TABLE 1A. LEAD - SUMMARY OF SOIL SAMPLING LABORATORY RESULTS FOR POST-CLEANUP EVALUATION**

Sample Id	Date Sampled	Event	Lead (mg/kg)		
			6 in bgs	12 in bgs	18 in bgs
Initial	##/##/####	Initial <sup>14</sup>			
-C01		Pre			
-C02		Pre			
-C03		Pre			
-C04		Pre			
-C05		Pre			
-C06		Pre			
-C07		Pre			
-C08		Pre			
-P09 or 01B		Post	#		
-P10 or 02B		Post	#		
-P11 or 03B etc.		Post	#		
Pre-Excavation Depth-Specific Representative Soil Lead Conc <sup>15</sup> .			Not Applicable		
<b>Post-Excavation Depth-Specific Representative Soil Lead Concentration<sup>16</sup></b>			Highest concentration since less than 8 samples	Based on all data left in place at this depth	Based on all data left in place at this depth
<b>Post-Excavation Representative Soil Lead Concentration<sup>17,18</sup></b>					
<b>Cleanup Goal</b>			<b>80 mg/kg</b>		
<p>NOTES</p> <p>A representative soil lead concentration is determined by the 95 percent upper confidence limit (UCL) of the mean lead concentration in soil. If a minimum of 8 samples were not collected, the representative soil lead concentration is based on the maximum concentration.</p> <p><sup>2</sup>Based on ProUCL output – See Attachment H.</p> <p>Statistical Summary of Lead Concentrations Remaining at the Property Post-Excavation:</p> <p>Number of Samples used = [##]          Mean = [###]          Median = [###]          Maximum = [###]          Standard Deviation = [###]</p> <p>Abbreviations:</p> <p>in bgs = inches below ground surface          mg/kg = milligrams per kilogram          dup = duplicate sample (or duplicate sample in parentheses after primary sample)          C0 = Pre-Excavation Confirmation Sample or other acceptable nomenclature          PSO = Post-Excavation Confirmation Sample</p> <p><b>Bold = Sample remains in place post-excavation and used in calculation</b></p> <p><b>Soil associated with shaded concentrations were removed during excavation activities.</b></p>					

<sup>14</sup> INCLUDE ONLY IF IT IS KNOWN THAT IT WAS LEFT IN PLACE

<sup>15</sup> Obtain from property Specific Design Plans

<sup>16</sup> Calculate based on all data points left in place at depth specified

<sup>17</sup> Calculate based on all data points left in place all depths combined.

**Table 1 b Additional Metals - Summary of Soil Sampling Laboratory Results for Post-Cleanup Evaluation**

Sample ID / Location	Date Sampled	Event	Antimony	Arsenic	Cadmium	Copper	Zinc
			(mg/kg)				
E0967-C01-12		C0					
E0967-C01-18		C0					
E0967-C02-12D		C0					
E0967-C02-18		C0					
E0967-C03-12		C0					
E0967-C03-18		C0					
E0967-C04-12		C0					
E0967-C04-18		C0					
E0967-C05-12		C0					
E0967-C05-18		C0					
E0967-C06-12		C0					
E0967-C06-18		C0					
E0967-C07-12		C0					
E0967-C07-18		C0					
E0967-C08-12		C0					
E0967-C08-18		C0					
E0967-PS01		PS0					
Screening Level <sup>1</sup>			31	12	5.2	3,100	23,000
<b>Post-Excavation Representative Soil Concentration</b>			N/A	7.42 <sup>19</sup>	N/A	N/A	N/A
<p><u>Notes:</u>  <sup>1</sup> Antimony, United States EPA Region 9 Regional Screening Level; Arsenic, Upper-bound ambient arsenic concentration in southern California (<a href="https://dtsc.ca.gov/upload/Background-Arsenic.pdf">https://dtsc.ca.gov/upload/Background-Arsenic.pdf</a>); Cadmium, California HERO Human Health Risk Assessment Note 3; Copper, United States EPA Region 9 Regional Screening Level; Zinc, United States EPA Region 9 Regional Screening Level</p> <p><u>Abbreviations:</u>            mg/kg = milligrams per kilogram            D = duplicate sample            C0 = Pre-Excavation Confirmation Sample            PS0 = Post-Excavation Confirmation Sample            N/A = Not applicable due to all detections below Cleanup Goal</p>							

<sup>19</sup> Calculate only if one or more of the samples are above screening levels

**TABLE 2 SUMMARY OF EXCAVATION DEPTHS, QUANTITIES REMOVED AND RESTORED AND PROPERTY DETAILS**

EXCAVATION DEPTHS AND QUANTITIES REMOVED			
Excavation Area Number (Figure 4)	Depth (in bgs)	Area (sq ft)	Volume (cu yd)
E1	12	150	5.6
E2	12	150	5.6
E3	12	150	5.6
Total Excavation			16.7
WASTE MANAGEMENT			
Waste Classification (RCRA Hazardous Waste, Non-RCRA (California Restricted) Hazardous Waste, Non-Hazardous waste)			XXX Tons
RESTORATION QUANTITIES			
Material			Volume (cu yd)
Amended Grade A Topsoil			1.9
Decomposed Granite			1.9
List Mulch Type			1.9
Grade A Topsoil			1.9
Gray Rock			1.9
Gray Gravel			1.9
Lava Rock			1.9
Structural Fill			1.9
White Rock			1.9
Sod			
OTHER			
OTHER			
<b>Total</b>			<b>17.1</b>
PROPERTY DETAILS			
Work Dates			1/1/19 to 1/5/19
Residents relocated during construction?			Yes
Interior Cleaning Completed?			No
Air Ducts on Property?			Yes
Number of days Air Monitoring Data Exceeded the Air Quality Standard			#
Abbreviations In bgs = inches below ground surface Sq ft = square feet Cu yd = cubic yards			