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SITE MANAGEMENT PLAN
FORMER WESTERN FORGE & FLANGE FACILITY
540 CLEVELAND AVENUE
ALBANY, CALIFORNIA
CASE #RO0003009

PREPARED FOR:
Mr. Walter R. Pierce
Western Forge & Flange
687 County Road 2201
Cleveland, Texas 77328

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
1956 Webster Street, Suite 400
Oakland, California 94612

July 28, 2015
Project No. 401823003

July 28, 2015
Project No. 401823003

Mr. Walter R. Pierce
Western Forge & Flange
687 County Road 2201
Cleveland, Texas 77328

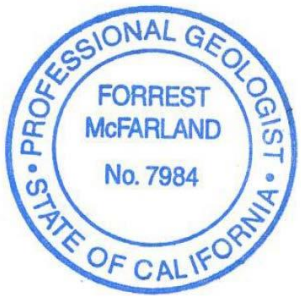
Subject: Site Management Plan
Former Western Forge and Flange Facility
540 Cleveland Avenue, Albany, California
Case #RO0003009

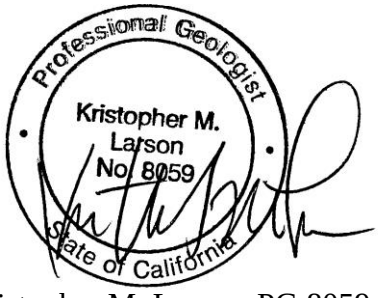
Dear Mr. Pierce:

Ninyo & Moore has prepared a Site Management Plan (SMP) for the former Western Forge & Flange facility located at 540 Cleveland Avenue, Albany, California, (site) based on a directive from the Alameda County of Environmental Health (ACEH), dated June 19, 2015. This SMP provides information and procedures regarding the mitigation of environmental impacts which may be encountered at the site during any future construction related grading and excavation activities. This SMP, along with a Land Use Covenant for the site, has been prepared as part of the case closure procedures required by the ACEH, and because of the change in site use from industrial to municipal.

We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE





Forrest McFarland PG No. 7984
Senior Project Environmental Geologist

Kristopher M. Larson, PG 8059
Principal Environmental Geologist

FSM/KML/vmp

Distribution: (1) Addressee
(1) Mark E. Detterman, ACEH

July 27, 2015
Project No. 401823001

To: Mr. Mark Detterman
Alameda County Department of Environmental Health
Health Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Perjury Statement
Site Management Plan
Western Forge and Flange
540 Cleveland Avenue
Albany, California 94706

I declare, under penalty of perjury, that the information or recommendations contained in the attached letter are true and correct to the best of my knowledge.

Walter R. Pierce
President and CEO
Western Forge & Flange Company

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1. INTRODUCTION

Ninyo & Moore was retained by Western Forge & Flange (WF&F) to prepare a Site Management Plan (SMP) for the former Western Forge & Flange facility located at 540 Cleveland Avenue, Albany, California (site, Figure 1). The site is currently under the regulatory oversight of the Alameda County Environmental Health Services (ACEH); Site Cleanup Program (SCP) Case No. RO0003009.

This SMP provides a framework to manage residual chemicals in the soil and groundwater at the site in a manner that is: 1) satisfactory to the ACEH and other regulatory agencies, 2) protective of human health and the environment, and 3) consistent with current land uses.

This SMP has been prepared to address potential municipal development at the site, and serves to underscore the presence of residual soil and groundwater contamination. The SMP presents work procedures to be followed when conducting any intrusive work which would disturb any potentially impacted soil and groundwater. Because the pending site closure is contingent on a Land Use Covenant (LUC) that will restrict the land and groundwater use on site, this SMP should be included with any development contracts for site re-development.

1.1. Site Location and Description

The site is located at 540 Cleveland Avenue in Albany, California (Figure 1), located in a commercial/industrial area between the Interstate 80 and 580 Freeways, and immediately east of a Union Pacific Rail Road (UPRR) right of way (Figure 2). The site is bordered to the north by a heavy industrial property (Albany Steel), to the south by a commercial building (currently occupied by the City of Albany and used as a maintenance yard), and to the east by Cleveland Avenue. The site is approximately 1.0 acre and is currently a vacant lot. All previous site structures, including an approximately 25,000 square-foot building with concrete and asphalt paved areas, were demolished in July 2013.

1.2. Purpose and Objectives

The purpose of this SMP is to provide a plan to prevent or to minimize human exposure to soil and groundwater contamination at the site, and was prepared to cover future redevelopment, including possible intrusive work at the site such as drilling, soil excavation, trenching, and backfilling activities. This SMP will also identify known locations of residual soil and groundwater contamination and will define appropriate materials handling and waste management procedures for the site.

2. BACKGROUND

2.1. Physical Site Setting

The subject site is situated between Albany Hill (approximately 700 feet to the east) and the San Francisco Bay mudflats (approximately 400 feet to the west). Cerrito Creek is approximately 700 feet to the north. The site is located approximately 2.2 miles west of the seismically active Hayward Fault.

2.2. Site Operational History

WF&F manufactured flanges onsite from 1944 to 2007. Raw materials such as titanium, aluminum, high nickel alloys, stainless steel and alloy steels were cut and heated in furnaces prior to being pressed, hammered/forged or machined into shape. The flanges were then inspected and shipped offsite to customers. Site operations included the use of two subsurface hydraulic lifts, one hydraulic ring roller, an oil/water separator, a boiler, quenching tanks, a small hammer/forge, and welding and maintenance areas. Hazardous materials were stored onsite near the center of the building. One aboveground storage tank, located along the northern boundary of the property, was used to store diesel fuel.

WF&F closed the facility in 2007 and moved its operation to Texas.

The site building and the majority of pavement surfaces were demolished and removed in June and July of 2013. Several subsurface concrete pits were also removed during building demolition activities.

2.3. Hydrogeologic Setting

The ground surface elevation of the site ranges from approximately 12 to 16 feet above mean sea level (MSL), and ground surface is gently sloped towards the west-southwest. The site sedimentology observed during excavation activities consisted of approximately 2 to 6 feet of fill material overlying native silty clay (Bay Mud) deposits. The margin of the San Francisco Bay historically crossed through the site, with the western portion of the site historically being tidal wetlands.

Based on the groundwater elevations, the groundwater flow direction is inferred to be west, towards the San Francisco Bay, with a gradient of approximately 0.02 feet per foot. Because of the site's proximity to the San Francisco Bay, groundwater elevations and flow direction may be tidally influenced.

2.4. Prior Investigations

The site has been the subject of several environmental assessments dating back to 1984. A Press Release contained in a Site Correction Documentation Report (Brown & Caldwell, 1985) indicated that site contamination was first discovered in 1983 and was related to process cooling water and storm water runoff carrying lead, nickel, copper, and oil and grease from inside the facility to an onsite storm drain (located in the western section of the property) and adjacent properties. WF&F removed approximately 200 cubic yards of contaminated soil from the site, and constructed barriers to prevent materials from flowing off site. Verification soil sampling was also conducted subsequent to site remediation. A letter from the Department of Toxic Substances Control (DTSC) dated November 1985 (DTSC, 1985) indicated that the site was fully mitigated and that no further action was necessary.

More recent investigation activities were conducted by Chemical Data Management Systems (CDMS) between 2008 through 2010. Subsurface sampling was conducted by CDMS in October and November 2008. Elevated concentrations of total petroleum hydro-carbons (TPH) in shallow soil were detected with respect to Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) in the hazardous waste storage, oil/water separator, ring roller, and boiler areas. Groundwater samples were also collected in several areas, and various metals were reported in groundwater above regulatory guidelines.

In January 2009, TPH-impacted soil was excavated in several areas, including the hazardous waste storage area, the boiler areas, the Ring Roller area, and an area southeast of the Ring Roller area. Excavation was reportedly discontinued after the slab was removed, as perched groundwater was encountered just beneath the slab, and no contamination was reported.

The Ring Roller area was further evaluated in February 2009, due to free product observed floating on the perched groundwater in the excavation. The free product was removed using skimmers and a vacuum truck, and a chemical reagent was used to treat the remaining TPH impacted soil and groundwater. The results of that treatment are not discussed in available reports. (CDMS, 2008a, 2008b, and 2009).

Based on data generated during episodes of site assessment, the site was determined to be impacted with constituents of concern (COCs) including arsenic, chromium, copper, lead, molybdenum, nickel, zinc, polycyclic aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons as hydraulic oil (TPHho) at elevated concentrations at various locations throughout the site. In order to protect human health and the environment, and allow the site to be redeveloped for future commercial/industrial land use, in 2013, a corrective action plan (CAP) and CAP Addendum were prepared for the site by Ninyo & Moore. The CAP recommended excavation and off-site disposal of additional impacted soil. The further excavation was implemented between October 2013 and January 2014, and is documented in the Removal Action Completion Report (Ninyo & Moore, 2014).

Implementation of the CAP included removal of approximately 1,200 cubic yards (1,798 tons) of impacted soil and replacing impacted soils with clean imported backfill materials. Approximately 12.5 tons of impacted groundwater was also removed from the site. Excavation confirmation samples were collected and the results indicated that the soil remediation met the requirements presented in the ACEH approved CAP and CAP Addendum. Three groundwater monitoring wells (MW-1 through MW-3) were also installed in the western portion of the site to evaluate post remediation groundwater quality. The locations of previous excavations and the site groundwater monitoring wells are shown on Figure 2.

An initial groundwater monitoring event was performed on December 5, 2013. TPHho was detected in monitoring well MW-1, and TPHho was not detected in monitoring wells MW-2 or MW-3. Concentrations of poly-aromatic hydrocarbons (PAHs), as acenaphthene and naphthalene, were detected in monitoring well MW-1. Concentrations of several metals (cobalt, copper, lead, molybdenum, nickel, and mercury) also exceeded clean-up goals. Groundwater monitoring has been conducted quarterly through the first quarter 2015 when site closure was requested.

Prior to requesting site closure, Ninyo & Moore conducted a screening level ecological risk assessment (SLERA) in 2015 to evaluate whether chemicals remaining in groundwater beneath the site could pose a threat to ecological receptors at the San Francisco Bay. This assessment was performed by a certified Diplomat of the American Board of Toxicology (DABT), and included an Ecological Conceptual Site Model (ECSM), which identified complete exposure pathways and exposure point concentrations, a risk characterization, which compared COCs against screening level values (SLVs) with calculated associated hazard quotients (HQs), and chemical fate and transport modeling for the six COPECs with HQs greater than 1. The SLERA concluded adverse chronic effects to aquatic organisms resulting from the down-gradient migration of the site's groundwater to the San Francisco Bay are unlikely under the current exposure scenario (Ninyo & Moore, 2015).

3. SITE MANAGEMENT ACTIVITIES

Based on a letter from the ACEH, dated June 19, 2015, the site is currently being considered for pending site closure, under a commercial land use scenario, contingent on the preparation and approval by the ACEH of a Land Use Covenant (LUC). The LUC will restrict use of both the land use and groundwater on site and will include as an attachment this SMP to identify known locations of residual soil and groundwater contamination and define appropriate materials handling and waste management procedures for the site.

Given the nature and extent of identified contamination, it is apparent that human site users, primarily construction/maintenance workers, are a potentially exposed population, with this exposure expressed primarily as a risk of dermal contact with impacted soil and, to a lesser extent, a risk of inhalation of contaminant vapors and/or windblown dust. Based on the results of previous excavations and investigations, locations of potential residual soil and/or groundwater contamination at the site are included on Figure 2.

3.1. General

In order to maintain compliance with the LUC intent, no excavation work shall be conducted at the site unless expressly permitted in writing by the ACEH with the exception of limited excavation for utility repairs or similar other limited excavations. Any contaminated soils brought to the surface by grading, excavation, drilling, trenching or backfilling shall be managed in accordance with this SMP, and the applicable provisions of local, state, and federal law. Routine landscaping and maintenance of improvements on the site are permitted.

All uses and development at the site shall preserve the integrity of the site surface including any concrete or asphalt cover, unless otherwise permitted in writing by the ACEH, and no additional buildings or surface structures are to be constructed without the approval of the ACEH.

The owner or occupant of the site shall not drill, bore, construct, or use a well for the purpose of extracting water for any use including, but not limited to, domestic, potable, or industrial uses, unless permitted in writing by the ACEH.

The owner of the site shall notify the ACEH of each of the following: 1) the type, cause, location, and date of any disturbance to the site surface, including concrete or asphalt cover, and any remedial measures taken or remedial equipment installed, and 2) the type and date of repair of such a disturbance. Notification to the ACEH shall be made by registered mail within ten working days of both the discovery of such a disturbance and the completion of repairs.

3.2. Site Specific Health and Safety Plans

Prior to initiating any intrusive or removal actions, the contractor shall prepare a site-specific Health and Safety Plan (HASP). The HASP will be prepared in accordance with guidelines set forth in Title 8 of the California Code of Regulations, Section 5192 and Title 29, CFR, Section 1910.120 (29 CFR 1910.120), Standards for Hazardous Waste Operations and Emergency Response (HAZWOPER). The HASP will include a description of health and safety training requirements for on-site construction workers, a description of the level of personal protective equipment to be used, if any, air quality management plans, and other applicable precautions to be undertaken. The HASP shall include procedures for handling soil and/or groundwater impacted by TPHho, PAHs, and metals.

3.3. Soil Management

Soil management during construction activities involves the precautions that will be taken to mitigate risks to human health and the environment from identified chemicals during potential future development such as intrusive activities at the site including soil excavation, drilling, trenching, grading, and utility repair. Soil management activities include the following:

- Construction management measures to control dust and fugitive emissions generated at the site, decontamination and off-site tracking control, and prevention of storm water runoff.
- Procedural implementation to characterize and segregate soils if found to be impacted by TPH, PAH, or metals in excess of the State of California hazardous waste criteria,

and proper planning and control of these soils including profiling, transportation and disposal at an appropriate receiving facility.

- For any disturbed or excavated soils found to be contaminated at the site, then soil testing frequencies and test methods utilized to characterize these soils for transport and disposal, will be determined by the appropriate receiving facility for the soil.

- If soil is to be re-used onsite, it shall be tested to determine if TPHho, PAHs, and metals are below site cleanup goals, which include RWQCB ESLs for Commercial/Industrial Land Use where groundwater is not a potential drinking water resource (May 2013 ESLs, Table B-2).

- Soil testing for re-used or disposal can be performed prior to any potential excavations from soil borings installed to similar depths of the proposed project execution, or during excavation by sampling soil stockpiles as they are formed.

3.4. Soil Testing and Analytical Procedures for Soil Re-Use or Clean Imported Fill Material

Soils from the site intended for re-use, or imported soils from a clean fill source will be sampled at a frequency in accordance with the California Department of Toxic Substance Control (DTSC) Information Advisory Clean Imported Fill Material (Advisory), dated October 2001 (DTSC 2001; Appendix A). The minimum number of samples to be collected for analysis to be in compliance with the DTSC is as follows:

- Stockpiles up to 1,000 cubic yards will be sampled at a frequency of 1 sample for every 250 cubic yards.

- Stockpiles from 1,000 to 5,000 cubic yards will be sampled at 4 samples for the first 1,000 cubic yards and 1 sample for each additional 500 cubic yards.

- Stockpiles greater than 5,000 cubic yards will be sampled at 12 samples for the first 5,000 cubic yards, plus 1 sample for each additional 1,000 cubic yards.

3.5. Materials Designated for Offsite Disposal

If contaminated materials are discovered during excavation activities and cannot be reused on site, these materials will be segregated in stockpiles to be transported to the appropriate landfill for disposal. The stockpile(s) will be sampled following landfill disposal criteria, and will be analyzed for, at a minimum, TPH as diesel, motor oil and hydraulic oil, PAHs, and

Title 22 Metals. Based on the results of metals analyses, the following waste evaluation screening criteria apply:

If a sample collected from stockpiles designated for disposal exceed ten times its respective soluble threshold limit concentration (STLC) for metals, that sample shall also be analyzed using the waste extraction test (WET) to evaluate the waste classification. In addition, a toxic characteristic leaching procedure (TCLP) will be conducted if the WET exceeds the STLC to evaluate the hazardous waste (either RCRA or non-RCRA) classification.

Based on the analytical results, the following waste classification and disposal criteria will apply:

- Federal RCRA-hazardous wastes will be disposed of at a Class I landfill facility. This waste may require pre-treatment prior to Class I disposal based on the levels of contaminants in the waste.
- Non-RCRA (California) hazardous wastes may be disposed of at a California hazardous waste Class I landfill facility, or at an out-of-state appropriately permitted hazardous waste facility. If transported to an out-of- state facility, the material would be disposed of based on classification in the state where the receiving facility is located.
- Non-hazardous impacted materials may be disposed of at a Class II solid waste facility, or used as daily cover at such a facility, as appropriate.

3.6. Soil Stockpile Handling Procedures

Soil stockpiles shall be covered daily with plastic sheeting and/or tarps anchored securely with cord and sandbags and will not be situated in stormwater channels or adjacent to storm drains. Soil profiled as above site cleanup goals cannot be re-used and shall be disposed of offsite at an appropriate receiving facility. Access to all stockpiles and excavated areas shall be controlled to prevent accidental exposures for unauthorized personnel.

3.7. Groundwater Handling Procedures

Concentrations of dissolved metals including cobalt, lead, and nickel at levels above environmental screening levels have been detected at the site. Groundwater has been typically

documented as shallow as 4-8 feet below ground surface at the site. Because of this, if any intrusive activity or excavation is proposed to contact groundwater, and de-watering activities are required, the groundwater shall be stored in holding tanks at the site. Groundwater will be sampled, profiled and disposed of in accordance with applicable laws and regulations as required by the disposal facility.

Any clean project related groundwater from dewatering at the site shall either be discharged into the sanitary sewer under permit with the East Bay Municipal Utilities District (EBMUD), or shall comply with the National Pollutant Discharge System (NPDES) permit regulations with respect to discharge into storm drains. On-site treatment of contained groundwater may be required prior to discharge, however, temporary containment of groundwater can be conducted pending off-site disposal at an approved disposal facility.

3.8. Dust/Vapor Control Procedures

Dust suppression measures shall be implemented at the site during any intrusive construction activity in order to minimize off-site transportation of dust. Dust control measures must take into account that dust/vapors are generated during excavation or drilling, truck loading and transport, vehicular traffic, and wind impacting soil stockpiling operations. Dust control/minimization shall be achieved by the following measures:

- Spraying or misting excavated soil, truck loading areas, work areas, and stockpile areas with water.
- Minimize the soil drop height from the excavator's bucket onto soil stockpiles or into the transport trucks.
- Transport trucks should be covered to prevent soil spills and dust during transport to the disposal facility.
- Spray down truck routes with a water mist to contain dust, and
- Limit vehicle speed limits to 5 miles per hour onsite.
- Stockpiled soil shall be placed on, and covered with, 10-mil plastic sheets anchored in place using sandbags or gravel bags daily.

In the event of sustained wind speeds that cause visible fugitive emissions, soil-moving activities should be temporarily halted until sufficient dust control can reduce such emissions. In the event wind speeds exceed 25 mph for more than 30 minutes and visible emissions are observed, soil-moving activities should be halted until wind speeds decrease and no visible emissions are observed.

3.9. Decontamination Procedures

In addition to dust/vapor suppression, contaminated soil from intrusive work, excavation, and grading shall be retained onsite and controlled at all times. Procedures include the following:

- Off-site tracking shall be controlled through the use of entrance and exit gravel emplacements and rumble strips.
- Prior to departure, trucks and work vehicles should be cleaned of loose debris with a dry brush technique to minimize off-site contaminant mobilization.
- If wet conditions develop, a truck wash with rinse water and sediment containment capability shall be used to remove mud from tires and exterior surfaces of exiting vehicles.
- If conditions warrant, a street sweeper shall be retained to drive the local street route, in order to sweep up any residual off-tracked soil adjacent to the site.

3.10. Monitoring Wells

Three groundwater monitoring wells at the site (MW-1 through MW-3) are currently scheduled for decommissioning. Until the three wells are properly destroyed, all site wells shall be protected during any excavation, grading, or construction activities. The locations of the three wells are shown on Figure 2. Any damage to the wells should be reported to the ACEH immediately. Prior to the removal of these wells, or installation of any additional wells, the ACEH shall be notified and permits shall be obtained from the Alameda County Department of Public Works.

3.11. Storm Water Pollution Control

The State of California requires that storm water pollution controls shall be implemented by construction contractors in order to minimize soil erosion and sediment runoff from construction sites. Storm water pollution protection is managed through the State of California Construction General Permit. Specific requirements and procedures for these controls shall be detailed in the Storm Water Pollution Prevention Plan (SWPPP) prepared for the site.

Storm water pollution can occur when surface water contacts disturbed soils in excavation areas, exposed wastes, or soil stockpiles, and subsequently flows off the site into the Bay or into storm drain systems. Best management practices (BMPs) will be implemented in accordance with the SWPPP to contain storm water within the site perimeter and prevent uninhibited storm water runoff into storm drains or directly to the Bay.

BMPs such as silt fences, straw waddles, diversion dikes, storm drain inlet protection, outlet protection, visqueen covers, sediment traps, and/or sediment basins may be used to control storm water flow. Additionally, structural practices may be used to divert flows from exposed impacted soils, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site containing impacted soil. BMPs will be described and documented in the SWPPP.

3.12. Reporting

When excavation/grading activities are complete, a post construction report shall be prepared to document the relocation and final emplacement of any re-used soils or soils disposed of offsite. The report should be comprehensive and include a description of the earth moving activities, the dimensions of any excavations, and any confirmation soil sample locations. Soil and groundwater analytical data shall be provided in table form and the laboratory analytical reports will be included as an appendix. If soils and/or groundwater have been transported and disposed of offsite, transport manifests indicating final deposition shall be included in the report.

4. CONTINGENCY PLAN

This contingency plan is intended to summarize soil and groundwater management activities. Whenever intrusive subsurface work such as drilling, grading, de-watering, or excavation are proposed for the site, this contingency plan shall be implemented to address any residual or unknown subsurface contamination that may exist.

At all times during any such intrusive activities, soils shall be monitored for the presence of TPH including any free-phase product, VOCs, metals, hazardous chemicals, or chemical impacted soils or groundwater. An organic vapor testing device or photoionization detector should be kept onsite and available for use during any earthmoving activities. Where soils appear discolored or are suspected to be contaminated, these soils shall be monitored, and where necessary, separated and stored away from clean soils. When soil and/or groundwater is encountered that is suspected to be contaminated, the contractor shall notify the site environmental manager or consultant. The environmental manager shall then evaluate the site soils, and test to confirm the presence of the suspected contaminants, and then direct the contractor to stockpile soils as-needed within the project site. Continued work at a contaminated site shall require approval of the site environmental manager, and on-site personnel working directly with or in the vicinity of the contaminated soil must be trained in OSHA hazardous waste operations with regulations based on CFR 1910.120 (e) and 8 CCR 5192, also known as 40-hour HAZWOPER training.

Where soil is confirmed to be impacted by VOCs, and chemical vapors are encountered, further excavation will require a Bay Area Air Quality Management District (BAAQMD) Rule 40 Permit, and requires compliance with the rules of the permit.

Where contaminated soils are uncovered, the extent of removal actions shall be determined on a site–specific basis. Minimally, the chemically impacted soils within the boundary of the construction area, excavation or trench, shall be remediated to the satisfaction of the regulatory agency for the site, in this case, the ACEH. The site environmental manager or consultant will inform the contractor when the removal action is sufficient, and complete.

All excavation backfill material shall be structurally suitable for proposed land use, with non-hazardous contaminant concentrations which do not exceed screening criteria as described in Section 3.5.

Any dewatering activities associated with the project construction shall be either discharged into the sanitary sewer under permit with the EBMUD, or shall comply with NPDES permit regulations and an associated SWPPP regarding discharge into storm drains. On-site groundwater containment and treatment may be necessary under these permit requirements in order to remove pollutants prior to discharge. Alternatively, impacted groundwater may be temporarily contained on-site in storage tanks, profiled, and transported off-site at an approved disposal facility.

On completion of construction activities, a report shall be prepared to document the relocation and final emplacement of any re-used soils or soils disposed of offsite. The report should be comprehensive and include a description of the earth moving activities, the dimensions of any excavations, and shall include a site plan with soil sample locations shown. Soil analytical data shall be provided in table form and as laboratory reports. If soils have been transported and disposed of offsite, soil manifests indicating final deposition shall be included in the report.

4.1. Implementation of the Site Management Plan

Ninyo & Moore shall oversee the implementation of this SMP. A copy of this Site Management Plan shall be included in all contracts signed with any contractors and third party contractors who will be conducting intrusive work in the subsurface of the site. It is the responsibility of the contractor to maintain compliance with this SMP, the project specifications and the guidelines of the site specific health and safety plan. The contractor shall also be responsible for providing a copy of the SMP to any of its subcontractors.

This SMP has been prepared and is based on the current conditions of the site and currently applicable regulations. The SMP is a dynamic document and may be modified as-needed for such allowances as follows:

- A change in property land use, such as the addition of new buildings to the site,

- Changes to any legal requirements and/or regulatory requirements with respect to the site,
- Environmental and/or seismic changes which could affect the site,
- A scope of work that is not addressed in the SMP, and
- New chemical toxicity information for chemicals known to be present at the site.

5. LIMITATIONS

This SMP was prepared to address chemical impacts to soil and groundwater at the site, in the form of TPH as hydraulic oil, PAHs, and metals. This document does not address issues related to other chemicals or unforeseen conditions that may be encountered during future construction projects, including but not limited to other chemicals, demolition and construction debris, concrete, asphalt, and asbestos-containing materials. If such materials are encountered during construction activities, contractor and workers are responsible for complying with all applicable regulations and laws pertaining to the handling and proper disposal of said materials.

This SMP has been prepared in general accordance with current regulatory guidelines and the standard-of-care exercised in preparing similar plans in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this SMP. Variations in site conditions may exist and conditions not observed or described in this SMP may be encountered during subsequent activities.

The environmental interpretations and opinions contained in this SMP are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site, and on work performed by others. The testing and analyses have been conducted by independent laboratories, which are certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis or work performed by others. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results and work performed by others.

Our recommendations and opinions are based on an analysis of the observed site conditions and includes work performed by others. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The recommendations of this SMP may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

This SMP is intended exclusively for use by WF&F. Any use or reuse of the findings, conclusions, and/or recommendations of this SMP by parties other than the WF&F is undertaken at said parties' sole risk

Ninyo & Moore disclaims any responsibility for unauthorized use of this SMP. It is understood that while this SMP is intended to provide guidance and establish a framework for the management of residual TPHho, PAHs and metals in the subsurface soils with the intent to protect human health and the environment, this SMP shall not create any warranty or obligations to Ninyo & Moore as to the adequacy, or success of environmental protective measures under this SMP.

6. REFERENCES

Brown and Caldwell, 1985, Western Forge & Flange Company, Albany Site Correction Documentation Report, dated May 10.

CDMS, 2008a, Chemical Data Management Systems, 2008, Closure Plan for Western Forge & Flange Co., 540 Cleveland Avenue, Albany, California, dated April.

CDMS, 2008b, Chemical Data Management Systems; Site Environmental Assessment for Western Forge & Flange Co., 540 Cleveland Avenue, Albany, California, dated November.

CDMS, 2009, Chemical Data Management Systems; Closure Report for Western Forge & Flange Co., 540 Cleveland Avenue, Albany, California, dated June.

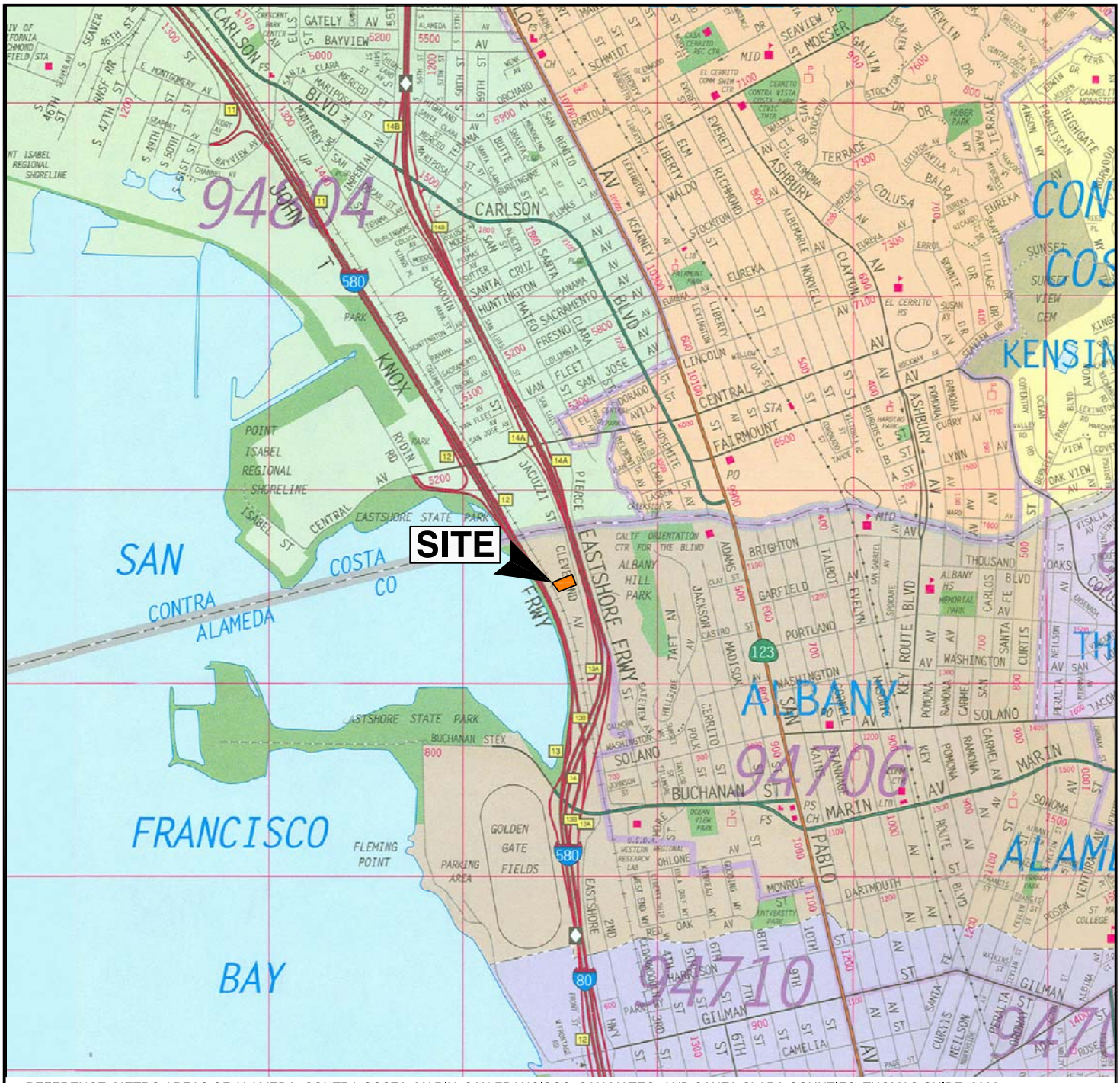
DTSC, 1985, Department of Toxic Substances Control, 1985 SPRL Deletion Recommendation for Western Forge & Flange, dated November 25.

DTSC, 2001, California Department of Toxic Substances Control; Information Advisory, Clean Imported Fill Material, dated October.

Ninyo & Moore, 2014, Ninyo & Moore; Removal Action Completion Report, Former Western Forge and Flange Facility, 540 Cleveland Avenue, Albany, California; (RACR), dated February 6.

Ninyo & Moore, 2015, Ninyo & Moore, 1st Quarter 2015; Groundwater Monitoring Report, Screening-Level Ecological Risk Assessment and Request for Site Closure, Former Western Forge and Flange Facility, 540 Cleveland Avenue, Albany, California; dated April 17.

RWQCB, 2013, San Francisco Bay Regional Water Quality Control Board; Environmental Screening Levels, dated December.



REFERENCE: METRO AREAS OF ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES, THOMAS GUIDE, 2008.

N

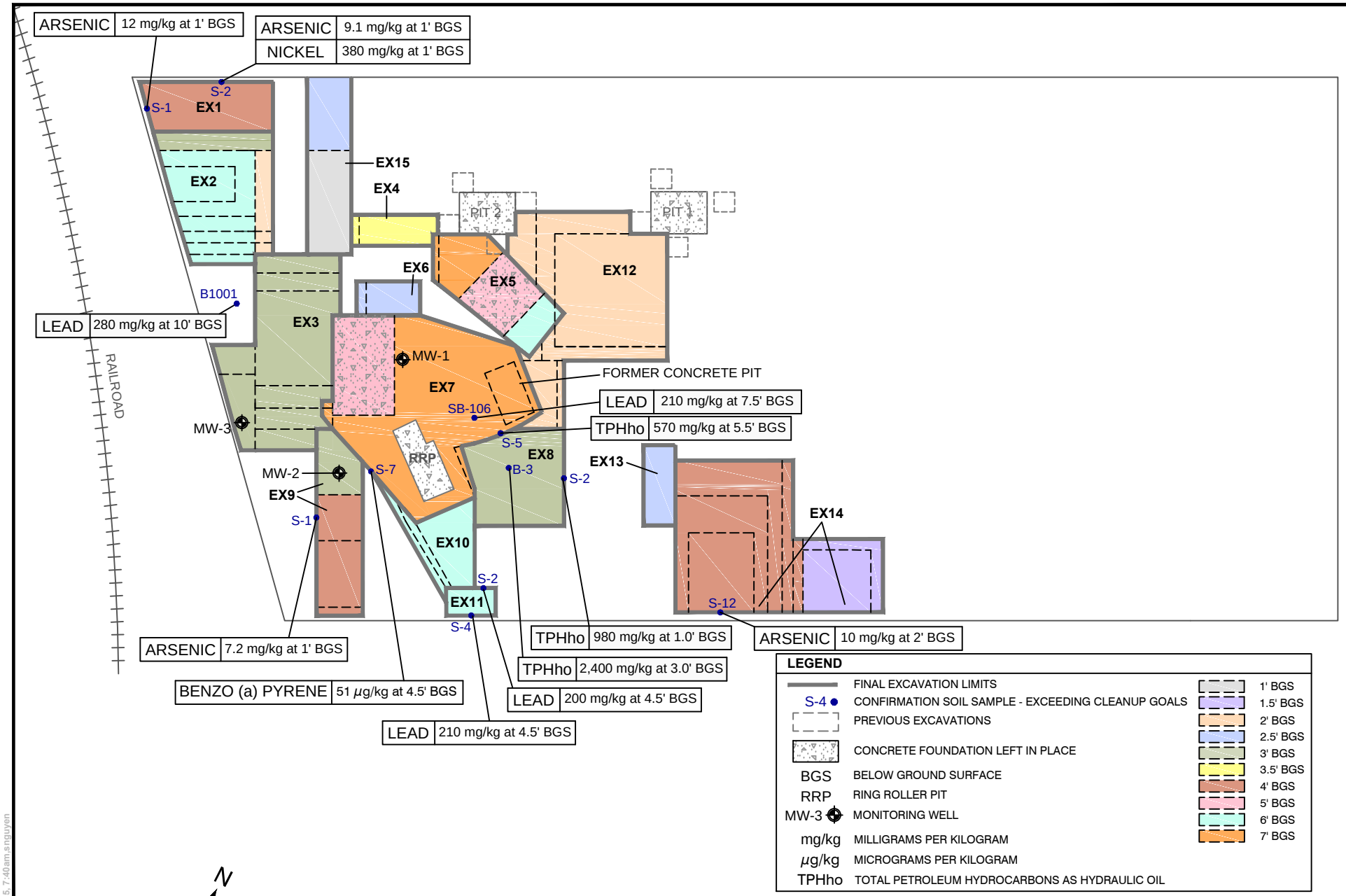
SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	SITE LOCATION	FIGURE
PROJECT NO. 401823003 / DATE 7/15	FORMER WESTERN FORGE & FLANGE FACILITY 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	1

401823003-FIG1.dwg, Sep 03, 2015, 7:39am, snguyen



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011, SITE PLAN BY GILLIS + PANICHAPAN ARCHITECTS, INC. SHEET A1.1, MARCH 2014.

Ninyo & Moore	SITE PLAN WITH EXCAVATION AREAS, MONITORING WELL LOCATIONS, AND REMAINING CONCENTRATIONS EXCEEDING CLEANUP GOALS	FIGURE
PROJECT NO. 401823003	DATE 7/15	FORMER WESTERN FORGE & FLANGE FACILITY 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	2

401823003_FIG2.dwg, Sep 03, 2015, 7:40am, snguyen

APPENDIX A

DTSC INFORMATION ADVISORY, CLEAN IMPORTED FILL MATERIAL

Information Advisory
Clean Imported Fill Material

October 2001

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Executive Summary

This fact sheet has been prepared to ensure that inappropriate fill material is not introduced onto sensitive land use properties under the oversight of the DTSC or applicable regulatory authorities. Sensitive land use properties include those that contain facilities such as hospitals, homes, day care centers, and schools. This document only focuses on human health concerns and ecological issues are not addressed. It identifies those types of land use activities that may be appropriate when determining whether a site may be used as a fill material source area. It also provides guidelines for the appropriate types of analyses that should be performed relative to the former land use, and for the number of samples that should be collected and analyzed based on the estimated volume of fill material that will need to be used. The information provided in this fact sheet is not regulatory in nature, rather is to be used as a guide, and in most situations the final decision as to the acceptability of fill material for a sensitive land use property is made on a case-by-case basis by the appropriate regulatory agency.

Introduction

The use of imported fill material has recently come under scrutiny because of the instances where contaminated soil has been brought onto an otherwise clean site. However, there are currently no established standards in the statutes or regulations that address environmental requirements for imported fill material. Therefore, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to identify procedures that can be used to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material. Such sites include those that are undergoing site remediation, corrective action, and closure activities overseen by DTSC or the appropriate regulatory agency. These procedures may also apply to construction projects that will result in sensitive land uses. The intent of this fact sheet is to protect people who live on or otherwise use a sensitive land use property. By using this fact sheet as a guide, the reader will minimize the chance of introducing fill material that may result in potential risk to human health or the environment at some future time.

Overview

Both natural and manmade fill materials are used for a variety of purposes. Fill material properties are commonly controlled to meet the necessary site specific engineering specifications. Because most sites requiring fill material are located in or near urban areas, the fill materials are often obtained from construction projects that generate an excess of soil, and from demolition debris (asphalt, broken concrete, etc.). However, materials from those types of sites may or may not be appropriate, depending on the proposed use of the fill, and the quality of the assessment and/or mitigation measures, if necessary. Therefore, unless material from construction projects can be demonstrated to be free of contamination and/or appropriate for the proposed use, the use of that material as fill should be avoided.

Selecting Fill Material

In general, the fill source area should be located in nonindustrial areas, and not from sites undergoing an environmental cleanup. Nonindustrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous ma-

Potential Contaminants Based on the Fill Source Area

Fill Source:	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

**The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

Recommended Fill Material Sampling Schedule

Area of Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
Volume of Borrow Area Stockpile	**Samples per Volume**
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards +1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

terials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.

Documentation and Analysis

In order to minimize the potential of introducing contaminated fill material onto a site, it is necessary to verify through documentation that the fill source is appropriate and/or to have the fill material analyzed for potential contaminants based on the location and history of the source area. Fill documentation should include detailed information on the previous use of the land from where the fill is taken, whether an environmental site assessment was performed and its findings, and the results of any testing performed. It is recommended that any such documentation should be signed by an appropriately licensed (CA-registered) individual. If such documentation is not available or is inadequate, samples of the fill material should be chemically analyzed. Analysis of the fill material should be based on the source of the fill and knowledge of the prior land use.

Detectable amounts of compounds of concern within the fill material should be evaluated for risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual. If

metal analyses are performed, only those metals (CAM 17 / Title 22) to which risk levels have been assigned need to be evaluated. At present, the DTSC is working to establish California Screening Levels (CSL) to determine whether some compounds of concern pose a risk. Until such time as these CSL values are established, DTSC recommends that the DTSC PEA Guidance Manual or an equivalent process be referenced. This guidance may include the Regional Water Quality Control Board's (RWQCB) guidelines for reuse of non-hazardous petroleum hydrocarbon contaminated soil as applied to Total Petroleum Hydrocarbons (TPH) only. The RWQCB guidelines should not be used for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCS). In addition, a standard laboratory data package, including a summary of the QA/QC (Quality Assurance/Quality Control) sample results should also accompany all analytical reports.

When possible, representative samples should be collected at the borrow area while the potential fill material is still in place, and analyzed prior to removal from the borrow area. In addition to performing the appropriate analyses of the fill material, an appropriate number of samples should also be determined based on the approximate volume or area of soil to be used as fill material. The table above can be used as a guide to determine the number of samples needed to adequately characterize the fill material when sampled at the borrow site.

Alternative Sampling

A Phase I or PEA may be conducted prior to sampling to determine whether the borrow area may have been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with DTSC or appropriate regulatory agency. However, if it is not possible to analyze the fill material at the borrow area or determine that it is appropriate for use via a Phase I or PEA, it is recommended that one (1) sample per truckload be collected and analyzed for all compounds of concern to ensure that the imported soil is uncontaminated and acceptable. (See chart on Potential Contaminants Based on the Fill Source Area for appropriate analyses). This sampling frequency may be modified upon consultation with the DTSC or appropriate regulatory agency if all of the fill material is derived from a common borrow area. However, fill material that is not characterized at the borrow area will need to be stockpiled either on or off-site until the analyses have been completed. In addition, should contaminants exceeding acceptance criteria be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained, sampled and analyzed. Therefore, the DTSC recommends that all sampling and analyses should be completed prior to delivery to the site to ensure the soil is free of contamination, and to eliminate unnecessary transportation charges for unacceptable fill material.

Composite sampling for fill material characterization may or may not be appropriate, depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semivolatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides or PAH's from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.

When very large volumes of fill material are anticipated, or when larger areas are being considered as borrow areas, the DTSC recommends that a Phase I or PEA be conducted on the area to ensure that the borrow area has not been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with the DTSC.

For further information, call Richard Coffman, Ph.D., R.G., at (818) 551-2175.