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CORRECTIVE ACTION PLAN ADDENDUM
WESTERN FORGE & FLANGE
540 CLEVELAND AVENUE
ALBANY, CALIFORNIA

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 22, 2013
Project No. 401823001

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Project No. 401823001

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

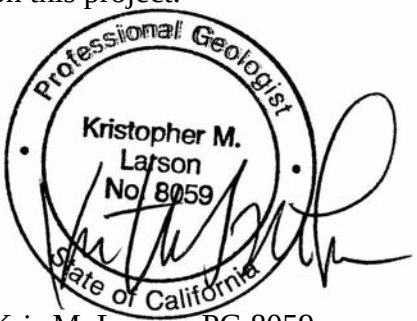
Subject: Corrective Action Plan Addendum
Western Forge & Flange
540 Cleveland Avenue
Albany, California

Dear Mr. Pierce:

Ninyo & Moore has prepared this Action Plan (CAP) Addendum for the Western Forge & Flange facility (site) located at 540 Cleveland Avenue in Albany, California. This CAP Addendum supplements the Revised CAP prepared by Ninyo & Moore dated May 15, 2013, and has been prepared to address comments from Alameda County Environmental Health received in a directive letter dated June 28, 2013.

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

Sincerely,
NINYO & MOORE



Cem R. Atabek
Senior Project Engineer

Kris M. Larson, PG 8059
Principal Environmental Geologist

CRA/KML/csj

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

July 22, 2013
Project No. 401823001

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

Re: Perjury Statement
Corrective Action Plan Addendum
Western Forge & Flange
540 Cleveland Avenue
Albany, California 94706

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

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

TABLE OF CONTENTS

1. INTRODUCTION

On behalf of the Western Forge & Flange, Ninyo & Moore presents this Corrective Action Plan (CAP) Addendum for the property located at 540 Cleveland Avenue in Albany, California. This CAP Addendum supplements the *Revised Data Gap Investigation Report and Corrective Action Plan* prepared by Ninyo & Moore dated May 15, 2013, and has been prepared to address comments from Alameda County Environmental Health (ACEH) received in a directive letter (Directive) dated June 28, 2013. A copy of the ACEH directive letter is presented in **Appendix A**.

2. PROPOSED CLEANUP GOALS (CGS)

The majority of the proposed cleanup goals (CGs) for soil presented in our May 2013 CAP were based on the February 2013 SFRWQCB Table B-2 ESLs (Commercial/Industrial Land Use, Shallow Soils, Groundwater is NOT a Current or Potential Source of Drinking Water). Revised ESLs were released by the RWQCB in May 2013 which will be used as the majority of the proposed CGs for the site as discussed below. Changes to the ESLs included an increase in the cobalt concentration (which was listed as a constituent of potential concern in our May 2013 CAP) between February and May 2013, so that the highest detected concentration of cobalt on-site (29 milligrams per kilogram [mg/kg]) is now below the May 2013 Table B-2 ESL of 80 mg/kg; therefore, cobalt is no longer considered a constituent of potential concern (COPC) at the site. The ESLs for arsenic and select polycyclic aromatic hydrocarbons (PAHs) decreased between February and May 2013 to be below concentrations detected on-site, therefore arsenic and select PAHs are now considered COPCs at the site.

As mentioned above, the proposed remediation CGs for site soil are the May 2013 RWQCB Table B-2 ESLs. However; we propose two exceptions to the Table B-2 ESLs for lead and arsenic, whose site specific CGs are 200 mg/kg and 7 mg/kg, respectively. The development of the arsenic CG is discussed further below, and the use of 200 mg/kg as the cleanup goal for lead is proposed because it is below the Table B-2 ESL for lead of 320 mg/kg. The proposed CGs for soil will be considered achieved when the 95% upper confidence limit (UCL) for remaining con-

centrations of a given COPC in soil is below the CG. The 95% UCLs will be calculated using the EPA recommended ProUCL software.

The remediation criteria proposed for groundwater at the site are the May 2013 RWQCB Table F-1b ESLs (Groundwater is NOT a current or potential drinking water source). This groundwater remediation criteria is based on the results of the Data Gap Investigation, where TDS and salinity concentrations in several groundwater samples were reported above than the San Francisco Bay Region Basin Plan (RWQCB 2007) guidelines of 3,000 mg/L for a potential drinking water resource.

Arsenic Cleanup Goal

As requested in Technical Comment 1a of the Directive, our justification for a revised CG for arsenic follows. Arsenic was reported in numerous samples above the May 2013 Table B-2 ESL of 0.96 mg/kg. Arsenic naturally occurs in soil throughout the region of the site at concentrations which typically exceed the ESL of 0.96 mg/kg. Therefore statistical analysis of the site-specific arsenic data set was performed to determine an upper-bound background arsenic concentration for the site and to develop a site-specific CG for arsenic. Statistical evaluation was performed for site-specific arsenic data using the Quartile Analysis (also known as "Fourth Spread") method. The Quartile Analysis method is recommended for determination of site specific arsenic cleanup goals in the Department of Toxic Substances Control (DTSC) guidance document titled *Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goal*, dated January 16, 2009. A value of half the laboratory detection limit was used in the statistical evaluation for samples with non-detectable concentrations of arsenic.

An upper-bound background concentration of 7.8 mg/kg was determined for arsenic in soil data using the Quartile Analysis method as presented in **Appendix B**. Concentrations of arsenic exceeding 7.8 mg/kg are considered to be outliers (impacted soil). Arsenic was detected in only two samples (B10A@0.5-1 at 20 mg/kg and B25A@1-2 at 9.9 mg/kg) exceeding the upper-bound background concentrations of 7.8 mg/kg. These arsenic concentrations were removed from the data set before performing further statistical evaluation to develop a CG for arsenic. As presented in **Appendix B**, the 98th percentile of the adjusted arsenic data set (with outliers

removed) is approximately 7 mg/kg, which would serve as the CG for arsenic in accordance with DTSC guidelines. A graphical evaluation of the distribution of the arsenic data set was also performed in accordance with DTSC guidelines. As presented in **Appendix B**, the inflection point on the graph of the entire arsenic data set is approximately 7 mg/kg, which represents the upper-bound background concentration which would serve as the CG in accordance with DTSC guidelines. Based on the concurring results of the two background arenic evaluation methods discussed above, an arsenic CG of 7 mg/kg is proposed for the site. It is important to note that according to the DTSC guidance document, the incremental cancer risk difference between background levels of arsenic and proposed CGs will be very small or insignificant in most cases.

3. TARGETED REMOVAL

The Directive Technical Comments relating to CAP task elements associated with the targeted removal remedial approach for impacted soil and targeted removal and natural attenuation remedial approach for impacted groundwater are described in this section. The section responds to the Directive Technical Comments 1b through 1g.

3.1. Targeted Removal

Targeted removal will be performed to remove areas of soil impacted with COPCs at concentrations exceeding CGs. These areas may act as sources from which constituents of concern may migrate to groundwater. The removal of the potential source areas will reduce further migration of constituents of concern to groundwater and will allow concentrations in groundwater to decrease over time through the natural processes of attenuation and biodegradation.

Excavation, soil stockpiling and truck loading will be performed using heavy equipment which may include a rubber-tire backhoe, track excavator, and loader. Removal of the buildings concrete floor slab will be conducted prior to excavation of impacted soil. Proposed excavation depths range from approximately 2 to 7 feet bgs measured from the existing top of the concrete floor slab. The excavation depths from the exposed ground surface following

removal of the slab will be adjusted to account for the thickness of the former concrete slab, which has an average thickness of approximately 6 inches in the areas of targeted excavation. Targeted excavation areas are identified using the letters EX followed by a unique number for each area of excavation to a specific depth. Excavation will continue laterally and vertically until reaching the limits presented on **Figure 10.** Additional excavation beyond the limits shown on **Figure 10** may be performed to remove soil exhibiting physical signs of significant impacts or exceeding CGs in confirmation samples. Excavation will not extend beyond the property boundaries. Calculations for estimated excavation volumes are presented in **Table 5,** along with the anticipated classification of the soil to be excavated as either clean over-burden, Class II (non-hazardous), or Class I (non-Resource Conservation and Recovery Act [non-RCRA] hazardous) waste.

Soil removal and stockpiling methodology will include the creation of three stockpiles for the following anticipated soil classifications: 1) potentially clean overburden soil, 2) COPC impacted Class II non-hazardous soil, and 3) Class I non-RCRA hazardous soil. All soil stockpiles will be stored in the eastern section of the site overlying a plastic liner. Potentially clean over-burden soil will only be segregated if it observed to be free of staining, odors, and low PID measurements. The stockpile locations are presented on Figure 10, and the anticipated soil classifications for excavation areas are indicated in Table 5. Stockpile construction, management, and sampling procedures are discussed further in Section 3.2 below.

3.2. Excavation Confirmation Soil Sampling

The discussions in the following section respond to Directive Technical Comment 1b and 1f.

During and subsequent to excavation activities, confirmation soil samples will be collected and selectively analyzed for TPHho, PAHs, and select Title 22 Metals that were detected at concentrations exceeding CGs in the excavation area being sampled. Confirmation soil samples will be collected after the excavation boundaries have been reached or the excavation has been over-excavated to an extent such that obvious signs of contamination are no longer observed. Confirmation soil samples will be collected from the excavation sidewalls and

from the bottom of the excavation. At least one sidewall sample will be collected for every 25 feet of sidewall length, and one bottom sample will be collected for every 25 foot by 25-foot area of the excavation to a specific depth. The proposed depths of sidewall confirmation samples target the depths where the most significant impacts were detected in previously collected samples from within the excavation area. Confirmation sample locations and depths will be adjusted in the field to target areas where physical signs of impacts are observed to be most significant and in the event that a sidewall or bottom confirmation sample shows contaminant concentrations in excess of CGs, the excavation will be enlarged and re-sampled. If no physical signs of impacts are observed following completion of excavation activities, confirmation samples will be collected near the center of the excavation sidewalls and bottoms, or spaced out evenly across the bottoms of excavations. **Table 6** presents the proposed confirmation sample locations, depths, and analyses, and the proposed confirmation sample locations are indicated on **Figure 10**.

The following subsections respond to the Directive Technical comments 1c and 1d.

3.2.1. EX1and EX2 - Northwest Corner of the Site

Excavation area EX1 is located in the northwestern corner of the site surrounding boring B-25A and B-25A-E. The excavation depth is based on soil samples collected between the surface and 3 feet bgs which indicated impacts from arsenic, copper, lead, molybdenum and nickel above CGs. The lateral boundaries of impacts were generally defined by step-out soil borings to the north (B-25A-N), south (B-25A-S-1) and west (B-25A-W1), which indicated lead and nickel below CGs (Table 1). The step out samples collected in boring B-25A-E toward the east and adjacent to the western edge of the site building indicated elevated concentrations (above the CG) of nickel to 2 feet bgs **(Figure 4)**; however, a sample collected at 3 feet bgs indicated nickel below the CG. Based on this data, the excavation will extend vertically to 4 feet bgs and laterally to 3 feet to the north, west and south of boring B25-A and to the western edge of the former building to the east. Based on the approximate dimensions, this excavation has an estimated in-situ volume of approximately 8 cubic yards (CY). The excavated material

from EX1 is anticipated to be Class I non-RCRA hazardous waste and will be therefore placed in a segregated stockpile for waste profiling.

Sidewall confirmation samples will be collected at two different depths (approximately 0.5 and 4.5 feet bgs) at each sidewall in excavation EX2 because impacts from metals are not easily identified through visual observation, and significant impacts from metals were detected in samples previously collected within excavation area EX2 at approximately 0.5 feet bgs and approximately 4 to 5 feet bgs.

3.2.2. EX4 and EX5 – Pit 2 Area

Confirmation samples will not be collected from the east side of excavation EX4 or the north side of excavation EX5 because there are no sidewalls at these locations due to the proximity of these excavations to each other, a previous test pit, and Pit 2.

3.2.3. EX7– Area 106/North and West of the Ring Roller Pit

Excavation area EX7 is located north and west of the former Ring Roller Pit and encompasses former excavation Area 106. The area proposed for excavation is based on elevated TPHho and nickel detected in Brown & Caldwell verification samples V8 and V9 (**Figure 9**), elevated TPHho detected in CDMS confirmation samples from the north wall and south wall of Area 106 (**Figure 9**), elevated TPHho detected in samples collected in borings B-8A and B-8C, and elevated PAHs and arsenic detected in samples collected in boring B-8C (**Figure 3**). Area 106 was previously excavated by CDMS in 2010 to approximately 3 feet bgs. Available information on the CDMS excavation does not indicate the depths of the confirmation samples, however the sample depths are assumed to be between approximately 1 and 3 feet bgs. The excavation was not backfilled and will be extended to 7 feet bgs to remove residual impacts. Based on the proposed dimensions of this excavation area and the proposed excavation depth of 7 feet bgs, approximately 250 CY will be excavated from this area and placed in the stockpile for impacted Class II soil.

3.2.4. EX8 – East of the Ring Roller Pit/West of Area 5

Excavation area EX8 is located east of the former Ring Roller Pit and west of Area 5. The area proposed for excavation is based on elevated TPHho detected in borings B-19 and B-14, which indicated TPHho concentrations exceeding CGs above 2 feet bgs (**Figure 3**). The proposed excavation area measures approximately 21 feet by 25 feet with a depth of 2 feet bgs. Based on the proposed dimensions of this excavation area, approximately 30 CY will be excavated from this area and placed in the stockpile for impacted Class II soil.

Although analytical data from borings B-19 and B-14 indicate that impacts from TPHho do not exceed the CG below 2 feet bgs in excavation area EX8, there is the potential that soil impacted with TPHho at concentrations exceeding the CG will be present within this excavation area at depths below 2 feet bgs based on the observations of liquid phase hydrocarbon (LPH) in the Area 106 excavation surrounding the RRP, and a significant concentration of TPHho (1,200 mg/kg) detected at 5 feet bgs in boring B-14. If areas of major staining are observed to remain within excavation area EX8 after excavation to 2 feet bgs, within the eastern sidewall of excavation area EX10 after excavation to 6 feet bgs, or within the southern sidewall of excavation area EX7 after excavation to 7 feet bgs, deeper excavation within excavation area EX8 would be performed as necessary to remove areas of major staining which are likely impacted with TPHho at concentrations exceeding the CG.

3.2.5. EX9 – Southwest of Ring Roller Pit

Excavation area EX9 is located southwest of the Ring Roller Pit. The area proposed for excavation is based on elevated concentrations of copper, nickel, molybdenum, and arsenic detected in the surface soil sample (0.5-1.0 feet bgs) in boring B-10A (**Figure 4**). The proposed excavation area measures approximately 12 feet by 12 feet with a depth of 3 feet bgs. Based on the proposed dimensions of this excavation area, approximately 13 CY will be excavated from this area and placed in the stockpile for impacted Class II soil.

3.3. Stockpile Construction, Management, and Sampling

This section addresses Directive Technical Comments 1e, 1f, and 2.

Excavated soil will be stockpiled on 10-mil thick plastic liners in designated areas in the eastern section of the property as presented on **Figure 10**. The stockpiles will be covered with 6-mil thick plastic liners secured with sand bags at all times that the stockpiles are not being added to or off-hauled. A berm will be constructed around based of the stockpiles to impede water from draining out of the excavated soil and onto the surrounding soil surface. The berm will be constructed by placing straw waddles beneath the 10-mil plastic liner around the perimeter of the stockpiles areas.

The potentially clean overburden stockpile will be sampled at a frequency of one 1 discrete sample per approximately 25 cubic yards of soil, in accordance with the guidelines of the SFRWQCB draft guidance document *Characterization and Reuse of Petroleum Impacted Soil as Inert Waste*, dated October 20, 2006. The COPC impacted soil stockpiles will be sampled at a frequency of four discrete samples which will be composited by the project laboratory into a single sample for analysis for up to 500 cubic yards of soil. Stockpile samples will be analyzed for TPHho using EPA Method 8015M and Title 22 Metals using EPA Method 6010B/7470A. Stockpile samples from the potentially clean overburden stockpile will additionally be analyzed for PAHs using EPA Method 8270 SIM. Analytical results will be used for waste profiling purposes and to determine whether stockpiled overburden soil can be reused as backfill. Additional analysis may be required for disposal profiling; facility requirements shall be determined prior to sampling and any additional facility-required tests run as well. The impacted soil will be transported to the appropriate disposal facility upon receipt and review of the disposal-profile analysis.

3.4. Backfilling Excavations

This section further addresses Directive Technical Comment 2.

After confirmation sample results have indicated that the impacted soil has been sufficiently excavated, the excavation will be backfilled and compacted, using imported clean fill and

overburden soil if it is deemed suitable for reuse. Over-burden soil would be considered suitable for reuse if stockpile sample analytical results are below CGs, however because residual concentrations of COPCs may still be present in the over-burden soil, this material would only be re-used as backfill in the upper two feet of excavations to minimize the likelihood of COPCs leaching from this material into groundwater. Analytical results for potentially clean overburden soil will be submitted to ACEH for review and approval prior to use as backfill material. Imported clean fill material will be sampled and analyzed in accordance with DTSC's *Clean Imported Fill Material Information Advisory*, dated October 2001, to ensure it is suitable for use as backfill material on-site. Analytical results and background information for the proposed imported fill material source(s) will be submitted to ACEH for review and approval prior to use as backfill material, and will also be presented in the Corrective Action Completion Report.

Based on the estimated volumes of soil to be excavated and previously excavated area 106, approximately 575 CY of compacted backfill material will be required to restore the site. If groundwater is present in excavations, drain rock and/or crushed concrete will be used to backfill the excavation to an elevation of at approximately 1 foot above the water table before backfilling with additional fill material. Geo-textile filter fabric will be placed over the drain rock prior to backfilling with additional fill material which will be placed in lifts of appropriate thickness and compacted to 95 percent relative compaction. Compaction testing will be performed to ensure adequate compaction has occurred. The imported clean fill material which will be used to backfill the upper 4 feet of remedial excavations will have characteristics similar to the surrounding native soil in order to minimize "mounding" effects on groundwater flow direction.

Assuming that groundwater will be encountered at approximately 5 feet bgs and that drain rock and/or crushed concrete will be used to fill excavations which encounter groundwater to a depth of approximately 4 feet bgs, approximately 175 CY of compacted drain rock and/or crushed concrete will be required. Assuming that all of the potentially clean overburden material will be re-usable as backfill material (estimated at approximately 49 in-place

CY), approximately 350 CY of additional imported clean fill material will be required to backfill the excavations. Using a factor of 25 percent to compensate for the reduction in volume due to compaction will increase the volume of imported fill required to be approximately 220 CY of drain rock and 440 CY of soil. Additional backfill material may be required as the excavations may expand based on confirmation sample analytical results or sidewalls collapsing into the excavation. The amount of backfill material required may also change based on the amount of overburden soil which can be re-used and the elevation of the water table.

During building demolition and concrete slab and pit removal activities that occurred between June and July, 2013, ¾-inch recycled crushed concrete material was imported to the site to backfill subsurface pits after removal of their concrete walls to a depth of approximately 5 feet bgs. Two 4-point composite samples were collected from the approximately 150 cubic yards of crushed concrete material imported to the site. The composite samples were analyzed for TPH as diesel (TPHd) and as motor oil (TPHmo) by EPA Method 8015M, PAHs by EPA Method 8270-SIM, and PCBs by EPA Method 8082. The analytical results indicated only minor concentrations (well below ESLs) of TPHd, TPHmo, fluoranthene, and pyrene, and no detectable concentrations of PCBs or other PAHs. The recycled crushed concrete material was therefore approved for use as backfill material on-site. A copy of the laboratory analytical report for the recycled crushed concrete samples is included in Appendix C. The recycled crushed concrete fill material was used as only a temporary backfill material within the upper 4 feet bgs of the subsurface pits. The recycled crushed concrete fill material will be removed from the subsurface pits to a depth of approximately 4 feet bgs (approximately 1 foot above the groundwater table) and re-used as fill material in the lower portions of the deeper remedial excavations to be performed at the site.

3.5. Groundwater Monitoring Wells

This section addresses the Directive Technical Comment 1g.

The proposed location of monitoring well MW-2 has been moved to be located north of excavation EX-9 as shown on **Figure 10**. Post remediation groundwater monitoring samples will be analyzed for PAHs using EPA Method 8270-SIM in addition to the COPCs listed in the Revised CAP.

3.6. Landowner Notification

The property owner, Western Forge & Flange, is in the process of completing the List of Landowners Notification Form.

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL, TITLE 22 METALS AND POLYCYCLIC AROMATIC HYDROCARBONS

SAMPLE ID	B-5A @4-5	B-5A @6-7	B-8C @4-5	B-8C @6-7	B-9A @7-8	B-10A @0.5-1	B-10A @6-7	B-12A @4-5	B-12A @6-7	B-14A @4-5	B-15A @4-5	B-15A @6-7	B-15B @4-5	B-15B @6-7	B-15C @1	B-15C @4-5	B-15C @6-7	B-17A @4-5	B17A @6-7	Cleanup Goals/ESLs mg/kg
Date Collected	12/18/12	12/18/12	12/18/12	12/18/12	12/17/12	12/18/12	12/18/12	12/17/12	12/17/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	
TPHs (mg/kg)																				
Hydraulic Oil	ND<50	ND<50	**4,300**	110	ND<50	NA	ND<50	210	ND<49	ND<50	ND<50	ND<50	ND<50	ND<49	NA	ND<49	ND<50	160	ND<50	2,500
Metals (mg/kg)																				
Antimony	ND<1.9		ND<2.0		ND<2.0	5.0		ND<2.0			ND<1.9				ND<1.9					40
Arsenic	ND<3.8		**7.1**		4.8	**20**		5.9			ND<3.7				ND<3.7					7*
Barium	430		170		240	130		1,100			190				270					1,500
Beryllium	0.43		ND<0.39		0.43	ND<0.38		0.44			0.71				0.37					8
Cadmium	ND<0.48		ND<0.49		ND<0.50	ND<0.48		ND<0.50			ND<0.47				ND<0.47					12.0
Chromium	30		58		21	200		33			13				14					NE
Hexavalent Chromium	NA		NA		NA	NA		NA			NA				NA					8
Cobalt	4.8		12		6.1	**29**		5.4			7.6				4.5					80
Copper	11	NA	94	NA	48	**730**	NA	42	NA	NA	10	NA	NA	NA	16	NA	NA	NA	NA	230
Lead	60		45		170	96		**270**			50				54					200**
Mercury	0.53		0.048		0.13	0.079		9.1			0.022				1.5					10.0
Molybdenum	ND<1.9		7.5		ND<2.0	**57**		ND<2.0			ND<1.9				ND<1.9					40
Nickel	13		110		23	**450**		19			12				9.9					150
Selenium	ND<3.8		ND<3.9		ND<4.0	4.1		ND<4.0			ND<3.7				ND<3.7					10
Silver	ND<0.96		ND<0.98		ND<0.99	ND<0.95		ND<0.99			ND<0.93				ND<0.93					40
Thallium	ND<1.9		ND<2.0		ND<2.0	1.9		ND<2.0			ND<1.9				ND<1.9					10
Vanadium	29		38		22	26		25			24				19					200
Zinc	69		63		44	410		490			34				67					600
PAHs (mg/kg)																				
Acenaphthene			1.8	0.16			ND<0.01			ND<0.0099	ND<0.005	ND<0.005						ND<0.01	ND<0.005	19
Acenaphthylene			ND<0.025	ND<0.025			0.010			ND<0.0099	ND<0.005	ND<0.005						0.016	ND<0.005	13
Anthracene			1.8	0.34			ND<0.01			ND<0.0099	ND<0.005	ND<0.005						0.012	ND<0.005	2.8
Benzo[a]anthracene			**3.1**	**0.70**			0.026			0.011	ND<0.005	ND<0.005						0.036	ND<0.005	0.45
Benzo[a]pyrene			**3.8**	**0.44**			0.032			0.012	0.0052	ND<0.005						0.041	ND<0.005	0.045
Benzo[b]fluoranthene			**4.5**	**0.54**			0.043			0.014	0.0061	ND<0.005						0.036	ND<0.005	0.45
Benzo[g,h,i]perylene			1.5	0.21			0.025			ND<0.0099	ND<0.005	ND<0.005						0.027	ND<0.005	27
Benzo[k]fluoranthene	NA	NA	ND<0.025	0.25	NA	NA	0.014	NA	NA	0.012	ND<0.005	ND<0.005	NA	NA	NA	NA	NA	0.043	ND<0.005	0.45
Chrysene			**5.1**	0.78			0.053			0.021	0.0051	ND<0.005						0.064	ND<0.005	4.5
Dibenz(a,h)anthracene			**0.79**	0.07			ND<0.01			ND<0.0099	ND<0.005	ND<0.005						ND<0.01	ND<0.005	0.13
Fluoranthene			9.3	1.50			0.083			0.024	0.0089	ND<0.005						0.069	ND<0.005	40
Fluorene			1.4	0.11			ND<0.01			ND<0.0099	ND<0.005	ND<0.005						ND<0.01	ND<0.005	8.9
Indeno[1,2,3-cd]pyrene			**1.5**	0.20			0.023			ND<0.0099	ND<0.005	ND<0.005						0.024	ND<0.005	0.45
Naphthalene			1.2	0.16			ND<0.01			ND<0.0099	ND<0.005	ND<0.005						ND<0.01	ND<0.005	4.8
Phenanthrene			7.9	1.10			0.085			0.025	0.0098	ND<0.005						0.088	ND<0.005	11
Pyrene			6.6	0.99			0.070			0.034	0.0075	ND<0.005						0.085	ND<0.005	85

Notes:
mg/kg = milligrams per kilogram NA = Not analyzed ND<X = Not Detected above laboratory reporting limit of X
ESLs = Environmental Screening Level, RWQCB Table B-2, Commercial/Industrial Land Use, Groundwater is not a current or potential source of drinking water.
* indicates a site specific cleanup goal of 7 mg/kg will be used for arsenic based on statistical analysis of naturally occurring background concentrations which exceed the ESL of 0.96 mg/kg
** indicates a site specific cleanup goal of 200 mg/kg will be used for lead, which is below the ESL of 320 mg/kg
Total Petroleum Hydrocarbons (TPH) as hydraulic oil analyzed by EPA Method 8015M.
Metals were analyzed by EPA Methods 6010B/7470.
PAHs - Polycyclic Aromatic Hydrocarbons analyzed by EPA 8270 SIM.
NE-An ESL for Total Chromium has not been established. The ESL for Trivalent Chromium is 750 mg/Kg and the ESL for Hexavalent Chromium is 8 mg/Kg
Bold indicates concentration exceeds cleanup goal.

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL, TITLE 22 METALS AND POLYCYCLIC AROMATIC HYDROCARBONS

SAMPLE ID	B-20A @4-5	B-20A @6-7	B-20B @1-2	B-20B @4-5	B-20B @6-7	B-21A @4-5	B-21A @6-7	B-22A @4-5	B-22A @6-7	B-22B @4-5	B-23A @4-5	B-23A @6-7	B-24A @4-5	B-24A @6-7	B-24B @4-5	B-24B @6-7	B-25A @1-2	UG-1 @0.5-1	UG-2 @0.5-1	Cleanup Goals/ESLs mg/kg
Date Collected	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/19/12	12/19/12	12/19/12	12/19/12	12/19/12	12/18/12	12/18/12	
TPHs (mg/kg)																				
Hydraulic Oil	ND<49	ND<50	NA	ND<50	ND<49	ND<50	ND<49	57	290	ND<49	ND<50	ND<49	ND<49	ND<50	56	ND<50	NA	NA	NA	2,500
Metals (mg/kg)																				
Antimony			NA					ND<1.9					3.6				5.3	NA	NA	40
Arsenic			4.4					ND<3.8					6.9				**9.9**	4.9	3.6	7*
Barium			NA					380					280				220	NA	NA	1,500
Beryllium			NA					0.42					ND<0.38				ND<0.39	NA	NA	8
Cadmium			NA					ND<0.47					2.6				1.1	NA	NA	12.0
Chromium			NA					27					160				350	NA	NA	NE
Hexavalent Chromium			NA					NA					NA				<0.99	NA	NA	8
Cobalt			NA					5.2					19				19	NA	NA	80
Copper			NA					19					74				**490**	NA	NA	230
Lead	NA	NA	NA	NA	NA	NA	NA	67	NA	NA	NA	NA	**260**	NA	NA	NA	**240**	NA	NA	200**
Soluble Lead (mg/L)			NA					NA					NA				5.2	NA	NA	NE
Mercury			NA					2.8					0.095				0.088	NA	NA	10.0
Molybdenum			NA					ND<1.9					5.2				**82**	NA	NA	40
Nickel			NA					19					**200**				**700**	NA	NA	150
Soluble Nickel (mg/L)			NA					NA					NA				0.41	NA	NA	NE
Selenium			NA					ND<3.8					ND<3.8				ND<3.9	NA	NA	10
Silver			NA					ND<0.94					1.1				1.5	NA	NA	40
Thallium			NA					ND<1.9					ND<1.9				ND<1.9	NA	NA	10
Vanadium			35					24					54				36	35	31	200
Zinc			NA					86					410				560	NA	NA	600
PAHs (mg/kg)																				
Acenaphthene	ND<0.005	ND<0.0049						ND<0.0098	ND<0.025				ND<0.0049	ND<0.0049						19
Acenaphthylene	ND<0.005	ND<0.0049						ND<0.0098	ND<0.025				ND<0.0049	ND<0.0049						13
Anthracene	ND<0.005	ND<0.0049						0.010	ND<0.025				ND<0.0049	ND<0.0049						2.8
Benzo[a]anthracene	0.012	ND<0.0049						0.036	0.036				ND<0.0049	0.006						0.45
Benzo[a]pyrene	0.015	ND<0.0049						0.033	0.041				ND<0.0049	0.006						0.045
Benzo[b]fluoranthene	0.016	ND<0.0049						0.051	0.051				0.013	0.012						0.45
Benzo[g,h,i]perylene	0.010	ND<0.0049						0.028	0.033				0.0051	0.0052						27
Benzo[k]fluoranthene	0.0058	ND<0.0049	NA	NA	NA	NA	NA	0.020	ND<0.025	NA	NA	NA	ND<0.0049	ND<0.0049	NA	NA	NA	NA	NA	0.45
Chrysene	0.019	ND<0.0049						0.065	0.081				0.020	0.016						4.5
Dibenz(a,h)anthracene	ND<0.005	ND<0.0049						0.011	ND<0.025				ND<0.0049	ND<0.0049						0.13
Fluoranthene	0.027	ND<0.0049						0.073	0.070				0.018	0.022						40
Fluorene	ND<0.005	ND<0.0049						ND<0.0098	ND<0.025				0.0065	ND<0.0049						8.9
Indeno[1,2,3-cd]pyrene	0.0088	ND<0.0049						0.027	0.030				ND<0.0049	ND<0.0049						0.45
Naphthalene	0.0083	ND<0.0049						ND<0.0098	ND<0.025				0.025	0.019						4.8
Phenanthrene	0.020	ND<0.0049						0.060	0.071				0.049	0.028						11
Pyrene	0.028	ND<0.0049						0.063	0.069				0.014	0.015						85

Notes:
mg/kg = milligrams per kilogram NA = Not analyzed ND<X = Not Detected above laboratory reporting limit of X
mg/L = milligrams per liter
ESLs = Environmental Screening Level, RWQCB Table B-2, Commercial/Industrial Land Use, Groundwater is not a current or potential source of drinking water.
* indicates a site specific cleanup goal of 7 mg/kg will be used for arsenic based on statistical analysis of naturally occurring background concentrations which exceed the ESL of 0.96 mg/kg
** indicates a site specific cleanup goal of 200 mg/kg will be used for lead, which is below the ESL of 320 mg/kg
STLC = Soluble Threshold Screening Level, California Code of Regulations Title 22
Grey shading indicates soluble lead concentration exceeding the STLC of 5 mg/L
Total Petroleum Hydrocarbons (TPH) as hydraulic oil analyzed by EPA Method 8015M.
Metals were analyzed by EPA Methods 6010B/7470.
PAHs - Polycyclic Aromatic Hydrocarbons analyzed by EPA 8270 SIM.
NE-An ESL for Total Chromium has not been established. The ESL for Trivalent Chromium is 750 mg/Kg and the ESL for Hexavalent Chromium is 8 mg/Kg
Bold indicates concentration exceeds Residential ESL for non-drinking water resource.

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL, TITLE 22 METALS AND POLYCYCLIC AROMATIC HYDROCARBONS

SAMPLE ID	B25A-3.0	B25A-4.0	B25A-S1-1.0	B25A-S2-1.0	B25A-E-1.0	B25A-E-2.0	B25A-E-3.0	B25A-N-1.0	B25A-W1-1.0	B25A-W2-1.0	Cleanup Goals/ESLs mg/kg
Date Collected	1/16/13	1/16/13	1/16/13	1/16/13	1/16/13	1/16/13	1/16/13	1/16/13	1/16/13	1/16/13	
TPHs (mg/kg)											
Hydraulic Oil	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,500
Metals (mg/kg)											
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7*
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,500
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0
Chromium	210	64	29	81	310	110	58	37	38	26	NE
Hexavalent Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230
Lead	14	19	19	59	48	NA	19	18	17	15	200**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Nickel	**240**	84	47	120	**2,500**	**440**	85	140	130	39	150
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	600
PAHs (mg/kg)											
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19
Acenaphthylene											13
Anthracene											2.8
Benzo[a]anthracene											0.45
Benzo[a]pyrene											0.045
Benzo[b]fluoranthene											0.45
Benzo[g,h,i]perylene											27
Benzo[k]fluoranthene											0.45
Chrysene											4.5
Dibenz(a,h)anthracene											0.13
Fluoranthene											40
Fluorene											8.9
Indeno[1,2,3-cd]pyrene											0.45
Naphthalene											4.8
Phenanthrene											11
Pyrene											85

Notes:
mg/kg = milligrams per kilogram NA = Not analyzed ND<X = Not Detected above laboratory reporting limit of X
ESLs = Environmental Screening Level, RWQCB Table B-2, Commercial/Industrial Land Use, Groundwater is not a current or potential source of drinking water.
* indicates a site specific cleanup goal of 7 mg/kg will be used for arsenic based on statistical analysis of naturally occurring background concentrations which exceed the ESL of 0.96 mg/kg
** indicates a site specific cleanup goal of 200 mg/kg will be used for lead, which is below the ESL of 320 mg/kg
Total Petroleum Hydrocarbons (TPH) as hydraulic oil analyzed by EPA Method 8015M.
Metals were analyzed by EPA Method 6010B.
PAHs - Polycyclic Aromatic Hydrocarbons analyzed by EPA 8270 SIM.
NE-An ESL for Total Chromium has not been established. The ESL for Trivalent Chromium is 750 mg/Kg and the ESL for Hexavalent Chromium is 8 mg/Kg
Bold indicates concentration exceeds Commercial ESL for non-drinking water resource.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL AND TITLE 22 METALS, INCLUDING HEXAVALENT CHROMIUM

SAMPLE ID	B-5A	B-8C	B-9A	B-10A	B-14A	B-15B	B-15C	B-17A	B-20A	B-21A	B-22A	B-22B	B-23A	B-24A	B-24B	B-25A	UG-1	UG-2	ESL(1)
Date Collected	12/18/12	12/18/12	12/17/12	12/18/12	12/18/12	12/18/12	12/18/12	12/18/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/19/12	12/19/12	12/19/12	12/18/12	12/18/12	
TPHs (µg/L)																			
Hydraulic Oil	NA	**2,200**	440 J	**1,100**	45 J	69 J	NA	180 J	<670	<620	140 J	NA	<620	100 J	NA	NA	150 J	140 J	640
Metals (µg/L)																			
Antimony	<10	<10	<10	<10		<10	<10	<10			<10	**13**		<10	<10	<10	<10	<10	30
Arsenic	<10	<10	29	15		<10	<10	<10			<10	11		<10	<10	22	<10	<10	36
Barium	160	630	**3,800**	**1,100**	NA	250	320	250			210	300		120	540	330	130	100	1,000
Beryllium	<2	<2	**11**	**2.2**		<2	<2	<2			<2	<2		<2	<2	<2	<2	<2	0.53
Cadmium	<2	<2	<2	<2		<2	<2	<2			<2	<2		<2	<2	<2	<2	<2	0.25
Chromium	<10	<10	**75**	16		<10	<10	<10			<10	17		<10	<10	<10	<10	<10	180
Hexavalent Chromium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	0.57		<0.5	<0.5	NA	4.9	8.5	11
Cobalt	**13**	2	**110**	**14**		<2	2.7	**3.3**			2.4	**51**		<2	<2	**14**	**5.3**	**58**	3
Copper	<20	<20	**200**	**69**		<20	<20	<20	NA	NA	**140**	<20	NA	**26**	<20	<20	<20	<20	3.1
Lead	<5	<5	**970**	**660**		<5	**8.2**	**46**			**400**	**180**		**5.6**	<5	<5	<5	<5	2.5
Mercury	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	<0.2			<0.2	0.21		<0.2	<0.2	<0.2	<0.2	<0.2	0.025
Molybdenum	100	31	13	53		39	83	160			**870**	**390**		120	20	62	170	40	240
Nickel	**20**	**18**	**180**	**25**	NA	<10	<10	**10**			**41**	**33**		<10	**11**	**48**	<10	<10	8.2
Selenium	<20	<20	<20	<20		<20	<20	<20			<20	<20		<20	<20	<20	<20	<20	5
Silver	<5	<5	<5	<5		<5	<5	<5			<5	<5		<5	<5	<5	<5	<5	0.19
Thallium	<10	<10	<10	<10		<10	<10	<10			<10	<10		<10	<10	<10	<10	<10	4
Vanadium	<10	**18**	**340**	**68**		<10	**15**	10			<10	<10		11	<10	<10	<10	<10	19
Zinc	50	<20	**1,800**	**390**		**99**	59	42			**200**	23		<20	<20	**200**	<20	22	81

Notes:

µg/L = micrograms per liter

(1) ESL = Environmental Screening Level, RWQCB Table F-1b, Groundwater is not a current or potential drinking water resource.

J = A J-flagged result is less than the laboratory reporting limit, but greater than or equal to the method detection limit and the reported concentration is an approximate value.

NA = Not Analyzed

TPHs were analyzed using EPA Method 8015M.

Metals were analyzed by EPA Methods 6010B/7471A/7196A.

Bold indicates concentration exceeds ESL for non-drinking water resource.

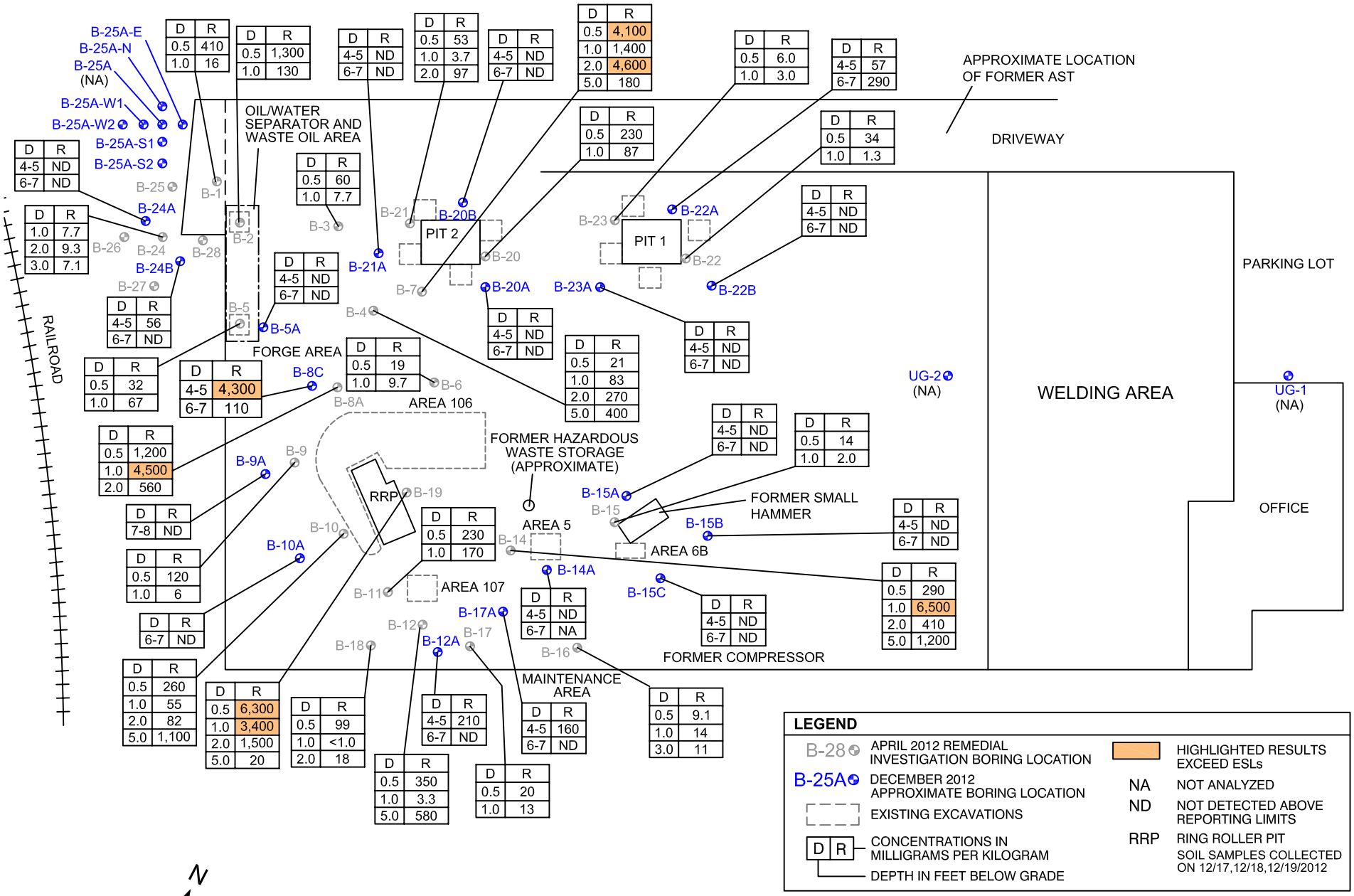
TABLE 5 - EXCAVATION VOLUME CALCULATIONS

Boring/Sample Location(s) Exceeding CGs	Excavation Area ID	Average Length (ft)	Average Width (ft)	Excavation Depth (ft bgs)	Concrete Slab Thickness (ft)	Excavation Thickness (ft)	Soil Volume (CY)	Soil Weight (tons)	Anticipated Soil Classification
B-25A, B-25A-E	EX1	9	6	0 to 4	0	4	8.0	12.0	Class I (non-RCRA Hazadous)
B-24A	EX2	14	9	0 to 1	0	1	4.7	7.0	Class II
				1 to 3	0	2	9.3	14.0	Clean Overburden
				3 to 6	0	3	14.0	21.0	Class I (non-RCRA Hazadous)
B1002, V10, V12	EX3	22	20	0 to 2	0.5	1.5	24.4	36.7	Class II
V15	EX4	19	8	0 to 2	0.5	1.5	8.4	12.7	Clean Overburden
				2 to 3.5	NA	1.5	8.4	12.7	Class II
B-7	EX5	12	12	0 to 5	0.5	4.5	24.0	36.0	Class II
V14	EX6	12	8	0 to 1	0.5	0.5	1.8	2.7	Clean Overburden
				1 to 2.5	NA	1.5	5.3	8.0	Class I (non-RCRA Hazadous)
B-8A, B-8C	EX7	45	15	0 to 7	0.5	6.5	162.5	243.8	Class II
106, V8, V9	EX7	40	15	3 to 7	NA	4	88.9	133.3	Class II
B-14, B-19	EX8	25	21	0 to 2	0.5	1.5	29.2	43.8	Class II
B-10A	EX9	12	12	0 to 3	0.5	2.5	13.3	20.0	Class II
Area 107	EX10	17	12	0 to 3	0.5	2.5	18.9	28.3	Clean Overburden
				3 to 6	NA	3	22.7	34.0	Class II
B-12A	EX11	12	7	0 to 3	0.5	2.5	7.8	11.7	Clean Overburden
				3 to 6	NA	3	9.3	14.0	Class I (non-RCRA Hazadous)
V7,V17	EX12	25	25	0 to 2	0.5	1.5	34.7	52.1	Class II
V2, 6B	EX13	9	18	0 to 1	0.5	0.5	3.0	4.5	Clean Overburden
				1 to 2.5	NA	1.5	9.0	13.5	Class I (non-RCRA Hazadous)
					Totals		**508**	**762**	
					Total Class II		**413**	**619**	
					Total Class I non-RCRA Hazardous		**46**	**69**	
					Total Clean Overburden		**49**	**74**	

TABLE 6 - CONFIRMATION SAMPLING PLAN

EXCAVATION AREA	CONFIRMATION SAMPLE LOCATION	SAMPLE DEPTH* (FEET BGS)	ANALYSIS		
			TPH AS HYDRAULIC OIL	PAHs	METALS
EX1 (Northwest Corner of the site)	S-1 through S-4	1	NA	NA	Arsenic, Copper, Nickel, Lead and Molybdenum
	B-1	4	NA	NA	Arsenic, Copper, Nickel, Lead and Molybdenum
EX2 (Northwest Corner of the site)	S-1 through S-4	0.5 & 4.5	NA	NA	Nickel and Zinc at 0.5'; Nickel, Lead and Zinc at 4.5'
	B-1	6	NA	NA	Nickel, Lead and Zinc
EX3 (South of Oil/Water Separator and Waste Oil Area)	S-1 through S-3	1	NA	NA	Copper and Nickel
	B-1	2	NA	NA	Copper and Nickel
EX4 (West of Pit 2)	S-1 through S-3	1.5	NA	NA	Nickel
	B-1	3.5	NA	NA	Nickel
EX5 (Forge Area/South of Pit 2)	S-1 through S-3	2	X	X	NA
	B-1	5	X	X	NA
EX6 (West of Forge Area)	S-1 through S-3	1.5	NA	NA	Copper and Nickel
	B-1	2.5	NA	NA	Copper and Nickel
EX7 (Area 106/North and West of the RRP)	S-1 through S-7	4.5	X	X	Nickel, Arsenic
	B-1 through B-3	7	X	X	Nickel, Arsenic
EX8 (East of the RRP/West of Area 5)	S-1 through S-3	1	X	X	NA
	B-1	2	X	X	NA
EX9 (Southwest of RRP)	S-1 through S-4	1	NA	NA	Arsenic, Copper, Nickel and Molybdenum
	B-1	3	NA	NA	Arsenic, Copper, Nickel and Molybdenum
EX10 (Area 107)	S-1 through S-3	4.5	X	X	NA
	B-1	6	X	X	NA
EX11 (South of Area 107)	S-1 through S-4	4.5	NA	NA	Lead
	B-1	6	NA	NA	Lead
EX12 (Southwest of Pit 1)	S-1 through S-4	1	NA	NA	Copper and Nickel
	B-1	2	NA	NA	Copper and Nickel
EX13 (Area 6B/Former Small Hammer)	S-1 through S-4	1	NA	NA	Lead
	B-1	2.5	NA	NA	Lead

Notes:
BGS - Below Ground Surface
* Indicates sample depths are measured from the top of the former concrete slab where it was present, and sidewall sample depths are based on the depth where the most significant impacts were previously detected within the excavation area.
PAHs - Polycyclic Aromatic Hydrocarbons
NA-Not Analyzed

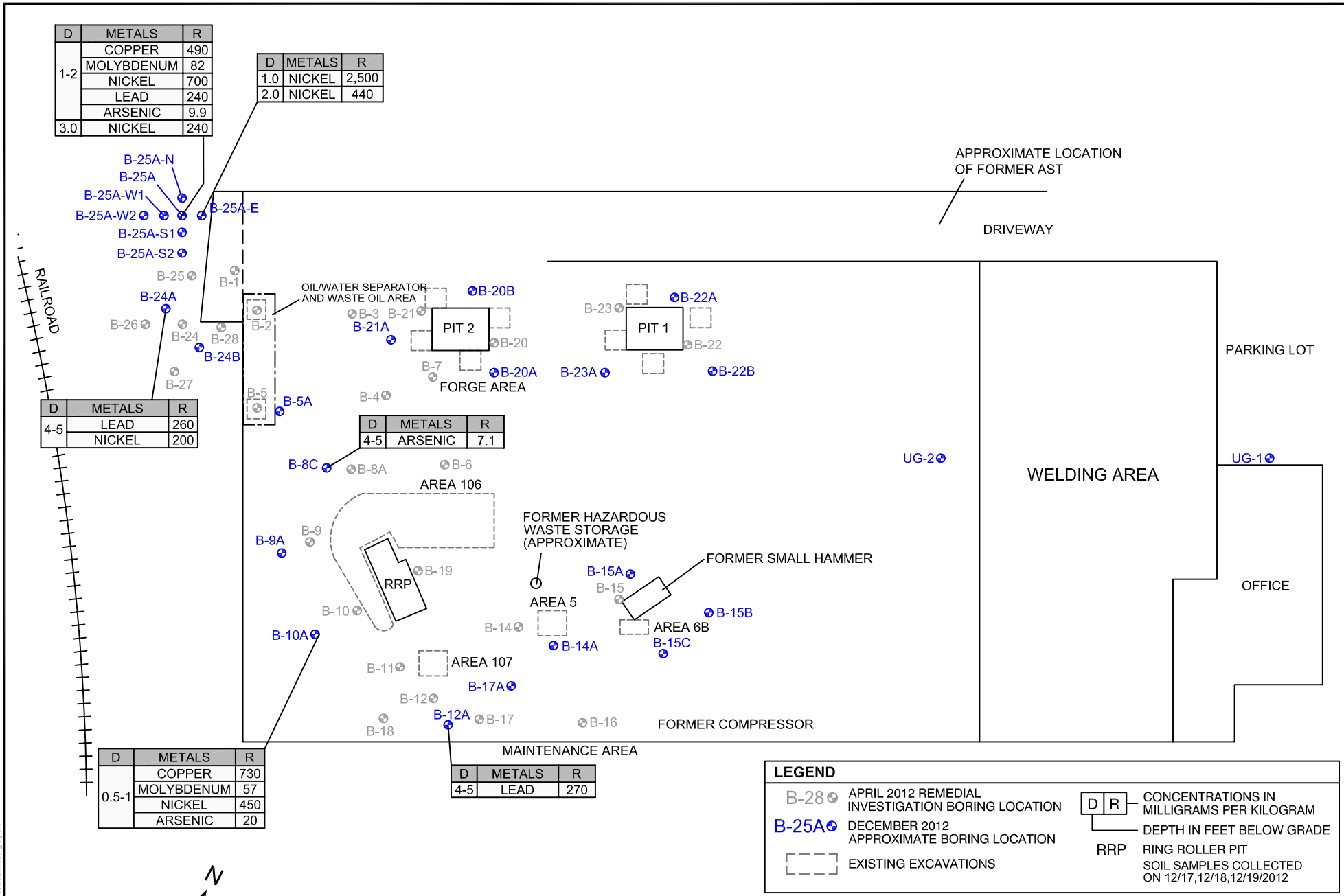


NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011.

Ninyo & Moore	TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL IN SOIL	FIGURE
PROJECT NO. 401823001 / DATE 7/13	WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	3

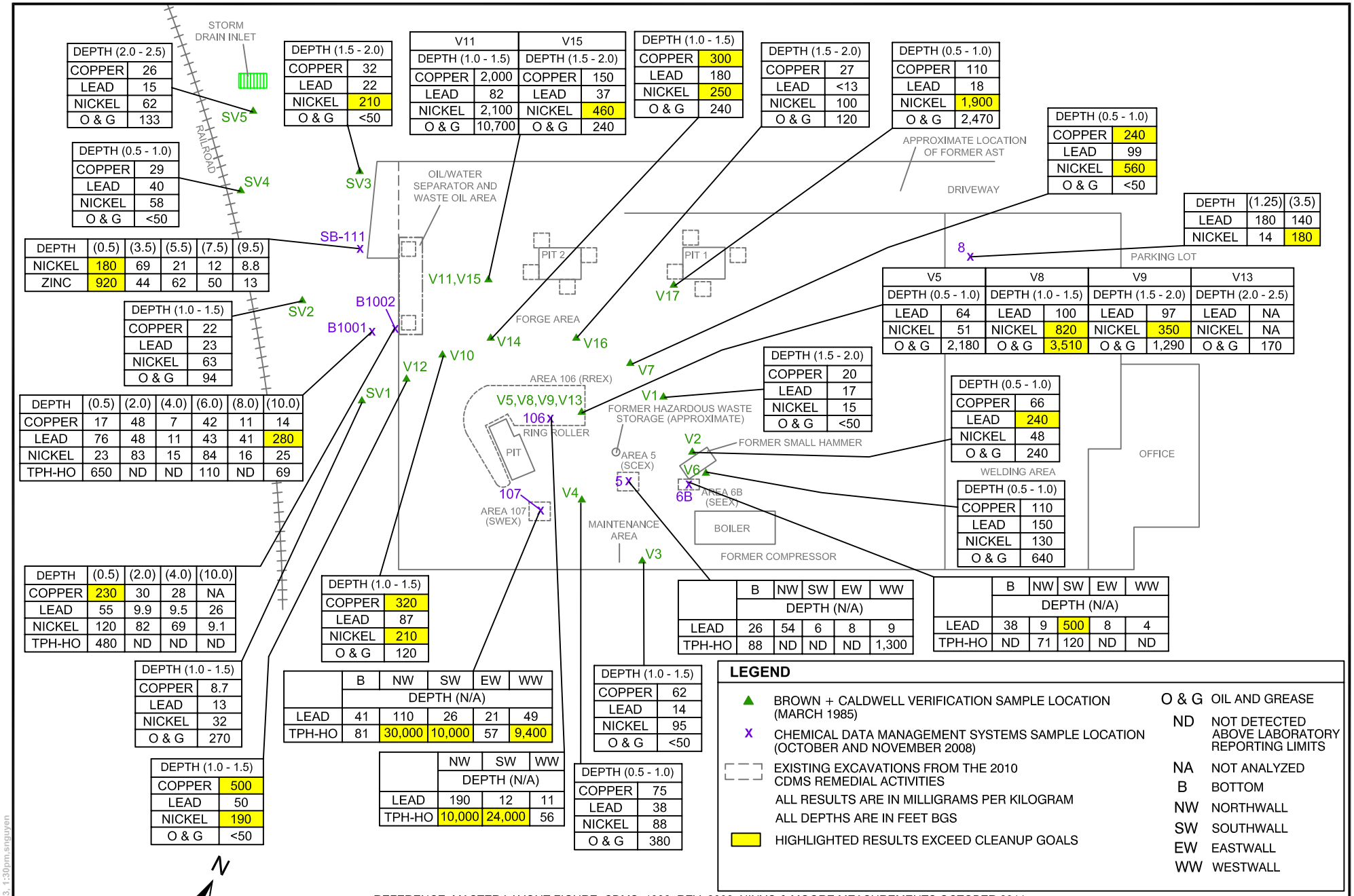
401823001-TPHO.dwg, Jul 15, 2013, 1:48pm,snguyen



REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011.

Ninyo & Moore	METALS IN SOIL EXCEEDING CLEANUP GOALS IN NINYO & MOORE BORINGS	FIGURE
PROJECT NO. 401823001 / DATE 7/13	WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	4

401823001-MS.dwg, Jul 17, 2013, 3:55pm,snguyen



DEPTH (2.0 - 2.5)	
COPPER	26
LEAD	15
NICKEL	62
O & G	133

DEPTH (0.5 - 1.0)	
COPPER	29
LEAD	40
NICKEL	58
O & G	<50

DEPTH	(0.5)	(3.5)	(5.5)	(7.5)	(9.5)
NICKEL	180	69	21	12	8.8
ZINC	920	44	62	50	13

DEPTH (1.0 - 1.5)	
COPPER	22
LEAD	23
NICKEL	63
O & G	94

DEPTH	(0.5)	(2.0)	(4.0)	(6.0)	(8.0)	(10.0)
COPPER	17	48	7	42	11	14
LEAD	76	48	11	43	41	280
NICKEL	23	83	15	84	16	25
TPH-HO	650	ND	ND	110	ND	69

DEPTH	(0.5)	(2.0)	(4.0)	(10.0)
COPPER	230	30	28	NA
LEAD	55	9.9	9.5	26
NICKEL	120	82	69	9.1
TPH-HO	480	ND	ND	ND

DEPTH (1.0 - 1.5)	
COPPER	8.7
LEAD	13
NICKEL	32
O & G	270

DEPTH (1.0 - 1.5)	
COPPER	500
LEAD	50
NICKEL	190
O & G	<50

DEPTH (1.5 - 2.0)	
COPPER	32
LEAD	22
NICKEL	210
O & G	<50

V11		V15	
DEPTH (1.0 - 1.5)		DEPTH (1.5 - 2.0)	
COPPER	2,000	COPPER	150
LEAD	82	LEAD	37
NICKEL	2,100	NICKEL	460
O & G	10,700	O & G	240

DEPTH (1.0 - 1.5)	
COPPER	320
LEAD	87
NICKEL	210
O & G	120

	B	NW	SW	EW	WW
	DEPTH (N/A)				
LEAD	41	110	26	21	49
TPH-HO	81	30,000	10,000	57	9,400

	NW	SW	WW
	DEPTH (N/A)		
LEAD	190	12	11
TPH-HO	10,000	24,000	56

DEPTH (1.0 - 1.5)	
COPPER	62
LEAD	14
NICKEL	95
O & G	<50

DEPTH (0.5 - 1.0)	
COPPER	75
LEAD	38
NICKEL	88
O & G	380

DEPTH (1.0 - 1.5)	
COPPER	300
LEAD	180
NICKEL	250
O & G	240

DEPTH (1.5 - 2.0)	
COPPER	27
LEAD	<13
NICKEL	100
O & G	120

DEPTH (1.5 - 2.0)	
COPPER	20
LEAD	17
NICKEL	15
O & G	<50

	B	NW	SW	EW	WW
	DEPTH (N/A)				
LEAD	26	54	6	8	9
TPH-HO	88	ND	ND	ND	1,300

DEPTH (0.5 - 1.0)	
COPPER	110
LEAD	18
NICKEL	1,900
O & G	2,470

DEPTH (0.5 - 1.0)	
COPPER	240
LEAD	99
NICKEL	560
O & G	<50

DEPTH	(1.25)	(3.5)
LEAD	180	140
NICKEL	14	180

V5		V8		V9		V13	
DEPTH (0.5 - 1.0)		DEPTH (1.0 - 1.5)		DEPTH (1.5 - 2.0)		DEPTH (2.0 - 2.5)	
LEAD	64	LEAD	100	LEAD	97	LEAD	NA
NICKEL	51	NICKEL	820	NICKEL	350	NICKEL	NA
O & G	2,180	O & G	3,510	O & G	1,290	O & G	170

DEPTH (0.5 - 1.0)	
COPPER	66
LEAD	240
NICKEL	48
O & G	240

DEPTH (0.5 - 1.0)	
COPPER	110
LEAD	150
NICKEL	130
O & G	640

	B	NW	SW	EW	WW
	DEPTH (N/A)				
LEAD	38	9	500	8	4
TPH-HO	ND	71	120	ND	ND

LEGEND

- ▲ BROWN + CALDWELL VERIFICATION SAMPLE LOCATION (MARCH 1985)
- x CHEMICAL DATA MANAGEMENT SYSTEMS SAMPLE LOCATION (OCTOBER AND NOVEMBER 2008)
- EXISTING EXCAVATIONS FROM THE 2010 CDMS REMEDIAL ACTIVITIES
- ALL RESULTS ARE IN MILLIGRAMS PER KILOGRAM
- ALL DEPTHS ARE IN FEET BGS
- HIGHLIGHTED RESULTS EXCEED CLEANUP GOALS

O & G	OIL AND GREASE
ND	NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
NA	NOT ANALYZED
B	BOTTOM
NW	NORTHWALL
SW	SOUTHWALL
EW	EASTWALL
WW	WESTWALL

REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011.

SCALE IN FEET

0 40 80

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

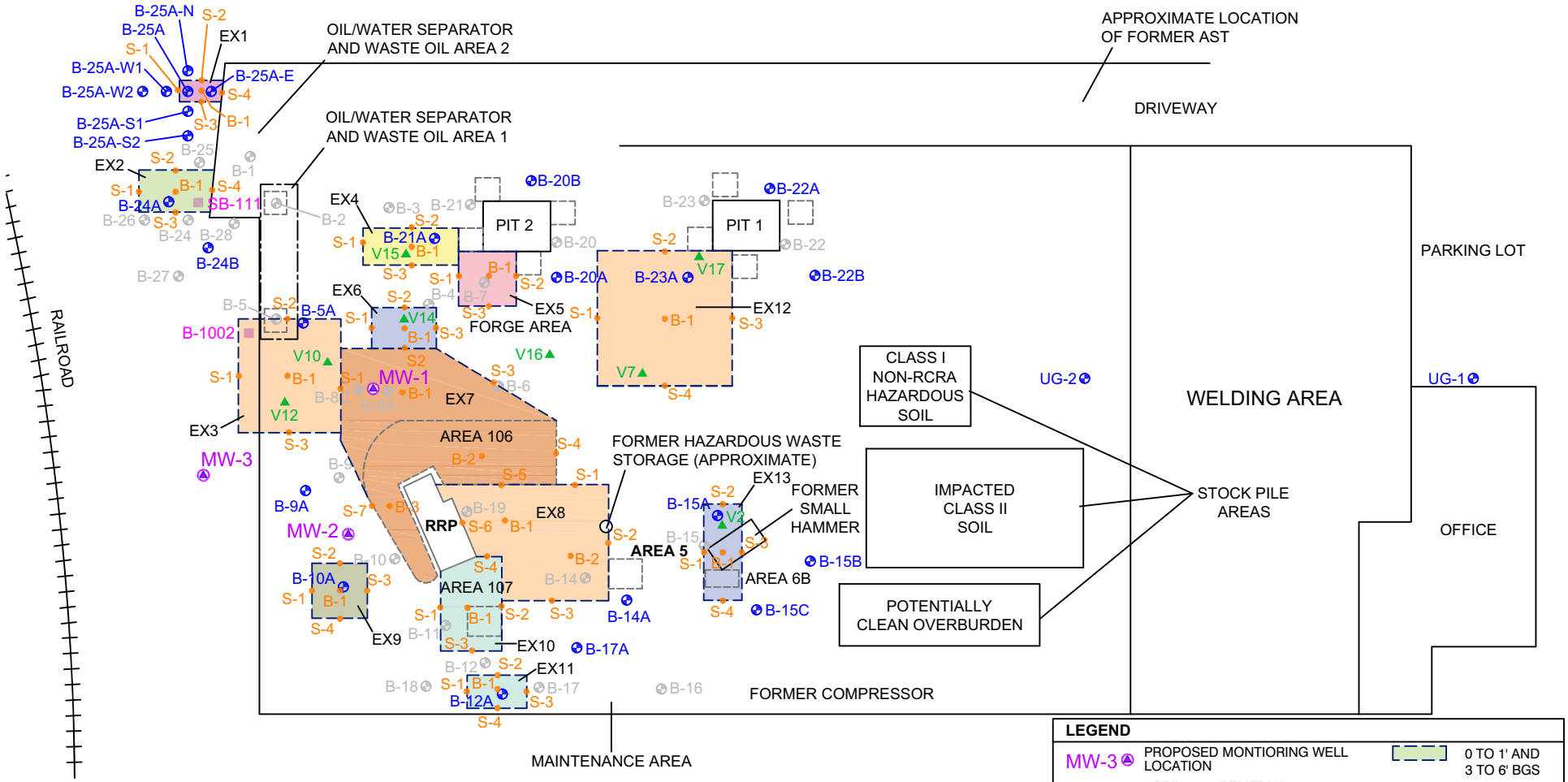
HISTORIC SOIL SAMPLING RESULTS

FIGURE 9

PROJECT NO.	DATE
401823001	7/13

WESTERN FORGE & FLANGE
540 CLEVELAND AVENUE
ALBANY, CALIFORNIA

401823001-HV.dwg, Jul 15, 2013, 1:30pm,snguyen



LEGEND

MW-3	PROPOSED MONTIORING WELL LOCATION		0 TO 1' AND 3 TO 6' BGS
B-28	APRIL 2012 REMEDIAL INVESTIGATION BORING LOCATION		1.0 TO 2.5' BGS
B-25A	DECEMBER 2012 APPROXIMATE BORING LOCATION		2 TO 3.5' BGS
V17	BROWN & CALDWELL VERIFICATION SAMPLE LOCATION (MARCH, 1985)		2' BGS
SB-111	CHEMICAL DATA MANAGEMENT SYSTEMS SAMPLE LOCATION (NOVEMBER 2008)		3' BGS
S-4	PROPOSED CONFIRMATION SAMPLE		3' TO 6' BGS
	EXISTING EXCAVATIONS		4' BGS
BGS	BELOW GROUND SURFACE		5' BGS
RRP	RING ROLLER PIT		7' BGS

N

SCALE IN FEET

0 30 60

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011.

Ninyo & Moore		LATERAL AND VERTICAL EXCAVATION BOUNDARIES AND CONFIRMATION SAMPLING	FIGURE
PROJECT NO.	DATE	WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	10
401823001	7/13		

401823001-LVXB.dwg, Jul 17, 2013, 3:58pm snguyen

APPENDIX A

ALAMEDA COUNTY ENVIRONMENTAL HEALTH DIRECTIVE LETTER

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 28, 2013

Mr. Walter Pierce
Western Forge & Flange Co.
687 Country Rd 2201
Cleveland, TX 77327
(sent via electronic mail to wpierce@western-forge.com)

Subject: Request for Revised Draft Corrective Action Plan; Site Cleanup Program (SCP) Case No. RO0003009 and Geotracker, Global ID # T10000001598; Western Forge & Flange, 540 Cleveland Ave. Albany, CA 94706

Dear Mr. Pierce:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the Draft Public Comment Fact Sheet, dated April 26, 2013, and the *Revised Data Gap Investigation Report and Corrective Action Plan,* dated May 15, 2013. The documents were prepared on your behalf by Ninyo & Moore. Thank you for submitting the documents.

The *Revised Data Gap Investigation Report and Corrective Action Plan* proposes the targeted excavation of soil at 12 to 14 source areas in order to remove heavy metal and Total Petroleum Hydrocarbon as hydraulic oil (TPHho) contamination, the dewatering of excavations that encounter groundwater that is generally encountered at a depth of 3 to 4 feet below surface grade (bgs), removal of Light Non-Aqueous Phase (LNAPL) product, the collection of confirmation soil samples to validate the extent of soil removal, and the installation of three groundwater monitoring wells to monitor groundwater concentrations in the assumption that natural attenuation will reduce TPHho and metals concentrations sufficiently to allow case closure.

ACEH is in general agreement with the proposed approach to corrective actions, and is in agreement that excavation is an appropriate action at the site. However, as you are aware, the Regional Water Quality Control Board's (RWQCBs) Environmental Screening Levels (ESLs) have recently undergone revision two times since the beginning of the year. The *Revised Data Gap Investigation Report and Corrective Action Plan* was written to accommodate changes to metal ESLs which are being used as corrective action cleanup goals. The corrective action plan (CAP) portion was written with the understanding that cobalt was a contaminant of concern. With the second revision, cobalt no longer is a contaminant of concern; however, arsenic now is, due to a significant lowering of the ESL value. These changes will directly affect the extent of corrective action excavation at the site, affecting the removal volume, potentially the approach, and presumably the cost. For these reasons, ACEH requests an addendum to the CAP portion of the referenced document.

TECHNICAL COMMENTS

1. **CAP Addendum –** The referenced report and CAP proposes a series of actions with which ACEH is in general agreement of undertaking; however, ACEH requests several modifications to the approach. Please incorporate these into a corrective action addendum by the date specified below.

    a. **Cleanup Goals for Cobalt and Arsenic –** Based on a very low ESL contained in the February 2013 revision to the RWQCB ESL document, the cleanup goal for cobalt was proposed to be 20 milligrams per kilogram (mg/kg) based on a statistical analysis of cobalt concentrations using the DTSC guidance document entitled *Arsenic Strategies,*

Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals, but applied to cobalt. However, in the May 2013 ESL revision the cobalt ESL reverted to an ESL higher than detected at the subject site. As a consequence it appears appropriate for the revised commercial cobalt ESL to be defined as the cleanup goal for the site. As noted above, this will affect the extent of soil excavation previously associated with cobalt concentrations; these changes need to be incorporated into a revised CAP (CAP Addendum), by the date identified below.

Conversely, the arsenic ESL in the May 2013 ESL revision decreased significantly. Justification for a higher arsenic cleanup goal has been the subject of recent discussions; however, a redefined cleanup goal has not yet been determined. Please incorporate justification of a revised cleanup goal for arsenic for the subject site in the CAP Addendum, by the date identified below.

Please note that this is necessarily a human and environmental health risk evaluation. The RWQCB ESL document states that the values in the ESL tables are considered to be Tier 1 risk assessment values, and if changes are proposed, the proposed values require additional risk evaluation, becoming a Tier 2 process. Please be aware that the presence of a chemical at concentrations above the ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring, just that the potential for adverse risk can exist and that additional evaluation is warranted. Thus this becomes a risk evaluation, rather than a background evaluation, and may ultimately become a cost / benefit analysis of performing a more site-specific risk assessment vs. utilizing standard ESLs for the contaminant.

b. **Excavation Confirmation Soil Sampling –** The CAP proposes the collection of one soil sample for every 25 linear feet of excavation sidewall and one centered bottom sample per excavation up to 2,500 square feet. ACEH requests sufficient additional bottom samples be collected to observe a bottom sampling interval of one soil sample per every 250 square feet. Because each corrective action excavation has multiple depths with soil contamination above the Clean-Up Goals (the recently revised RWQCB commercial ESLs for non-drinking water) ACEH additionally requests that each sidewall be characterized by soil sampling in each excavation at the depth of previously documented soil contamination. Finally, ACEH requests the samples be biased positively towards visible, odiferous, or otherwise noticeable contamination.

c. **Excavation Sidewall Sampling –** ACEH noted a number of proposed excavations that lacked a minimum of four sidewall soil samples that characterized the excavations around their entire perimeters. ACEH requests that sufficient samples be collected to do so (e.g. EX1, EX2, EX4, EX5, EX10, and etc.).

d. **Excavation EX8 –** ACEH notes that excavation EX8 is proposed to extend to a depth of approximately 2 feet bgs. Because of the location of the excavation proximal to the Ring Roller Pit and LNAPL at that location, additional depth may be required, similar to proposed excavation EX7. This is additionally suggested be the soil sample collected at a depth of 5 feet bgs in bore SB-14A. ACEH recognizes the contaminant concentration is below the commercial ESL in this soil sample, the smear zone, similar to EX7, may contain additional areas over the commercial ESL cleanup goal.

e. **Stockpile Management –** ACEH noted descriptions of dust management and traffic control management, but did into find stockpile management procedures at a site where dust control will be of importance. Please incorporate appropriate stockpile management in the CAP Addendum.

f. **Soil and Groundwater Analytical Suite –** ACEH is in general agreement with the proposed analytical suite; however, requests additional analysis for Poly Aromatic Hydrocarbons (PAHs) in soil and groundwater samples. The analysis of PAHs in soil is requested to be positively biased towards elevated residual TPHho contamination that has been presumed to be below RWQCB ESL Cleanup Goals. This is intended to address the potential use of the

Low-Threat Closure Policy (LTCP) for petroleum hydrocarbon contamination at the site, and / or to document that these chemicals are (presumably) below ESLs.

g. **Groundwater Monitoring Well Installation Locations –** ACEH is in general agreement with the locations of wells MW-1 and MW-3; however, a significant gap in the well network is present between wells MW-3 and MW-2. As a consequence ACEH requests modification of the position of well MW-2 to eliminate the well network gap in this area. Please document the proposed revised location of the well with the CAP addendum by the date listed below.

2. **Potential Soil Reuse and Clean Import Fill –** ACEH is in general agreement that some of the excavated soil may be suitable for reuse. Backfill operations will use the RWQCB's October 20, 2006 Draft *Characterization and Reuse of Petroleum Impacted Soil as Inert Waste*. ACEH requests that all soil that is considered or reclassified for potential reuse be characterized by the sampling protocol described for potentially clean overburden soil.

   In regards to documenting the quality of clean import fill, ACEH requests that the excavations be backfilled using material with characteristics similar to the surrounding native formation or flowable fill material in order to minimize "mounding" effects on groundwater flow direction. Fill material must be certified as "clean" in accordance with the California Environmental Protection Agency Department of Toxic Substances Control (DTSC) *Clean Imported Fill Material Information Advisory* (Attachment A) in order to minimize the potential of introducing contaminated fill material onto the site and protect future site occupants. An imported fill material plan prepared in accordance with the DTSC Advisory and fill documentation must be submitted to ACEH for review and approval prior to importing and backfilling the excavations. Clean fill documentation must be submitted with the Corrective Excavation Report.

3. **Landowner Notification** - Pursuant to Section 25297.15 (a), ACEH, the local agency, shall not consider cleanup or site closure proposals from the primary or active responsible party, issue a closure letter, or make a determination that no further action is required with respect to a site upon which there was an unauthorized release of hazardous substances from an underground storage tank subject to this chapter unless all current record owners of fee title to the site of the proposed action have been notified of the proposed action by the primary or active responsible party. ACEH is required to notify the primary or active responsible party of their requirement to certify in writing to the local agency that the notification requirement in the above-mentioned regulation has been satisfied and to provide the local agency with a complete mailing list of all record fee title owners.

   To satisfy the above-mentioned requirement, please complete the enclosed *List of Landowners Form* (Attachment B) and mail it back to ACEH by the date specified below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **July 19, 2013 -** Landowner Notification Form
  File to be named: RO3009_CORRES_L_yyyy-mm-dd

- **August 12, 2013** – CAP Addendum
  File to be named RO30009_CAP_ADDEND_L_yyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou,
email=mark.detterman@acgov.org, c=US
Date: 2013.06.28 17:13:45 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

Attachment A – DTSC *Clean Imported Fill Material Information Advisory*
Attachment B – *List of Landowners Form*

cc: Kris Larson, Ninyo & Moore, 1956 Webster Street, Suite 400, Oakland, CA 94612; (sent via electronic mail to klarson@ninyoandmoore.com)

Donna Drogos, (sent via electronic mail to donna.drogos@acgov.org)
Dilan Roe (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

ATTACHMENT 1

Responsible Party(ies) Legal Requirements/Obligations & ACEH Electronic Report Upload (ftp) Instructions

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to .loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to .loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT A

Department of Toxic Substance Control

Clean Imported Fill Material Information Advisory

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.

ATTACHMENT B

Landowner Notification Form

LIST OF LANDOWNERS FORM

County of Alameda
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

CERTIFIED LIST OF RECORD FEE TITLE OWNERS FOR:

Site Name: Western Forge and Flange

Address: 540 Cleveland Avenue

City, State, Zip: Albany, CA 94706

Record ID #: RO0003009

Please fill out item 1 if there are multiple site landowners (attach an extra sheet if necessary). If you are the sole site landowner, skip item 1 and fill out item 2.

1. In accordance with Section 25297.15(a) of Chapter 6.7 of the California Health & Safety Code, I, _____ (name of primary responsible party), certify that the following is a complete list of current record fee title owners and their mailing addresses for the above site:

   Name: _____

   Address: _____

   City, State, Zip: _____

   E-mail Address: _____

   Name: _____

   Address: _____

   City, State, Zip: _____

   E-mail Address: _____

   Name: _____

   Address: _____

   Name: _____

   Address: _____

2. In accordance with Section 25297.15(a) of Chapter 6.7 of the California Health & Safety Code, I _____, certify that I am the sole landowner for the above site.

Sincerely,

_____	_____	_____	_____
Signature of Primary Responsible Party	Printed Name	Date	E-mail Address

APPENDIX B

STATISTICAL ANALYSIS OF ARSENIC BACKGROUND CONCENTRATIONS AND CLEANUP GOAL

Table B-1 - Evaluation of Arsenic Cleanup Goal Using Quartile Analysis

Sample ID	Arsenic (mg/kg)
B1 (0.5)	2.9
B2 (0.5)	3.9
B4 (5.0)	1.6
B7 (0.5)	3.9
B8A (1.0)	3.2
B9 (0.5)	3.0
B9 (5.0)	2.8
B10 (5.0)	1.2
B12 (5.0)	3.5
B14 (1.0)	2.2
B19 (0.5)	3.0
B24 (1.0)	4.0
B24 (2.0)	4.1
B24 (3.0)	2.9
B-5A @ 4-5	1.9
B-8C @4-5	7.1
B-9A @ 7-8	4.8
B-10A @ 0.5-1	**20**
B-12A @ 4-5	5.9
B-15A @ 4-5	1.85
B-15C @ 1	1.85
B-20B @1-2	4.4
B-22A @ 4-5	1.9
B-24A @ 4-5	6.9
B-25A @ 1-2	**9.9**
UG-1 @0.5-1	4.9
UG-2 @0.5-1	3.6

Descriptive Statistics for Entire Data Set	
Number of Samples	27
Minimum	1.2
Maximum	20
Mean	4.3
First Quartile (Q1)	2.5
Median	3.5
Third Quartile (Q3)	4.6
95th Percentile	9
98th Percentile	14.8
95% UCL of Mean	5.4
Standard Deviation	3.7

Fourth Spread (Fs) = Q3-Q1 = 4.6 - 2.5 = 2.1

Upper Bound for Background Arsenic = Q3 + (Fs x 1.5) = 4.6 + (2.1 x 1.5) = 7.8

Outliers = Concentrations Exceeding 7.8 mg/kg

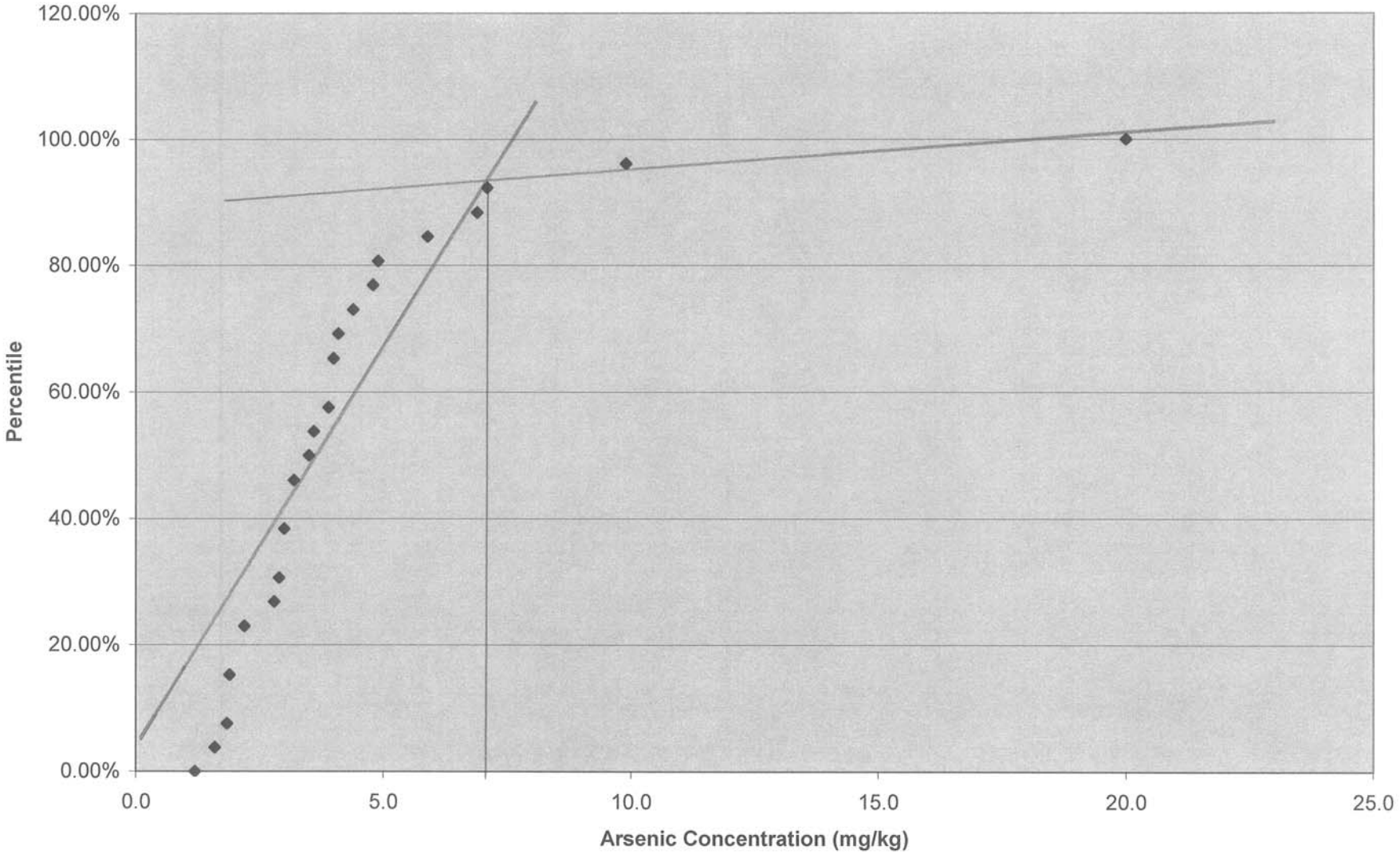
Descriptive Statistics for Data Set With Outliers Removed	
Number of Samples	25
Minimum	1.2
Maximum	7.1
Mean	3.5
Standard Deviation	1.6
98th Percentile	7

Cleanup Goal = 98th Percentile of Data Set with Outliers Removed

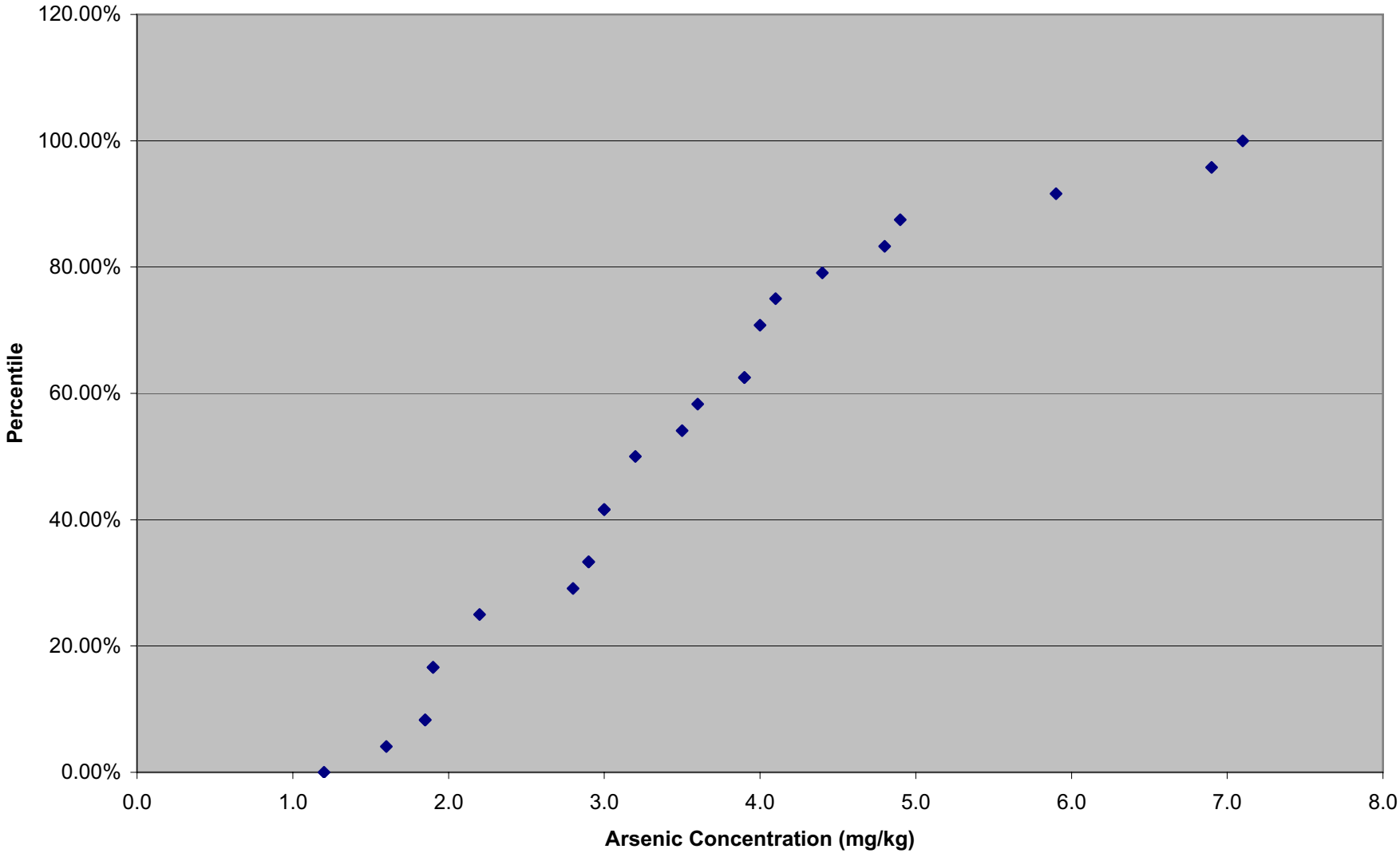
Cleanup Goal = 7 mg/kg

Notes:
Bold - indicates the concentration is considered an outlier

Arsenic Concentration vs. Percentile for Entire Data Set



Arsenic Concentration vs. Percentile with Outliers Removed



APPENDIX C

LABORATORY ANALYTICAL REPORT FOR IMPORTED CRUSHED CONCRETE FILL MATERIAL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

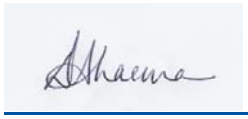
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-50816-1
Client Project/Site: Western Forge & Flange

For:
Ninyo & Moore
1956 Webster Street
Suite 400
Oakland, California 94612

Attn: Mr. Cem Atabek



Authorized for release by:
7/11/2013 5:48:03 PM

Dimple Sharma, Project Manager I
dimple.sharma@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Job ID: 720-50816-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50816-1

Comments
No additional comments.

Receipt
The samples were received on 7/10/2013 6:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1º C.

GC/MS Semi VOA
Method 8270C SIM: The following sample was diluted due to the color: CONCRETE COMPOSITE-1 (720-50816-1), CONCRETE COMPOSITE-2 (720-50816-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-1 **Lab Sample ID: 720-50816-1**

Sample Analysis Not Complete.

Client Sample ID: CONCRETE COMPOSITE-2 **Lab Sample ID: 720-50816-2**

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-1
Date Collected: 07/10/13 12:00
Date Received: 07/10/13 18:20

Lab Sample ID: 720-50816-1
Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Acenaphthylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[a]anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[a]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[b]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[g,h,i]perylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[k]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Chrysene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Dibenz(a,h)anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Fluoranthene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Fluorene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Indeno[1,2,3-cd]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Naphthalene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Phenanthrene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*33 - 120*	*07/10/13 20:06*	*07/11/13 15:43*	*2*
Terphenyl-d14	*102*		*35 - 146*	*07/10/13 20:06*	*07/11/13 15:43*	*2*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**67**		0.99		mg/Kg		07/11/13 10:27	07/11/13 13:39	1
Motor Oil Range Organics [C24-C36]	**92**		50		mg/Kg		07/11/13 10:27	07/11/13 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*85*		*40 - 130*	*07/11/13 10:27*	*07/11/13 13:39*	*1*

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-2

Date Collected: 07/10/13 13:00
Date Received: 07/10/13 18:20

Lab Sample ID: 720-50816-2

Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Acenaphthylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[a]anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[a]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[b]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[g,h,i]perylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[k]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Chrysene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Dibenz(a,h)anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Fluoranthene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Fluorene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Indeno[1,2,3-cd]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Naphthalene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Phenanthrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Pyrene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*33 - 120*	*07/10/13 20:06*	*07/11/13 16:06*	*2*
Terphenyl-d14	*99*		*35 - 146*	*07/10/13 20:06*	*07/11/13 16:06*	*2*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**71**		1.0		mg/Kg		07/11/13 10:27	07/11/13 14:08	1
Motor Oil Range Organics [C24-C36]	**93**		50		mg/Kg		07/11/13 10:27	07/11/13 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*53*		*40 - 130*	*07/11/13 10:27*	*07/11/13 14:08*	*1*

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-139862/1-A
Matrix: Solid
Analysis Batch: 139906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Acenaphthylene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Anthracene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[a]anthracene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[a]pyrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Chrysene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Fluoranthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Fluorene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Naphthalene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Phenanthrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Pyrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*33 - 120*	*07/10/13 10:49*	*07/10/13 18:13*	*1*
Terphenyl-d14	*95*		*35 - 146*	*07/10/13 10:49*	*07/10/13 18:13*	*1*

Lab Sample ID: LCS 720-139862/2-A
Matrix: Solid
Analysis Batch: 139906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	332	258		ug/Kg		78	49 - 120
Acenaphthylene	332	277		ug/Kg		84	52 - 120
Anthracene	332	284		ug/Kg		86	52 - 120
Benzo[a]anthracene	332	304		ug/Kg		92	52 - 120
Benzo[a]pyrene	332	307		ug/Kg		93	54 - 120
Benzo[b]fluoranthene	332	320		ug/Kg		96	51 - 120
Benzo[g,h,i]perylene	332	318		ug/Kg		96	48 - 120
Benzo[k]fluoranthene	332	313		ug/Kg		95	56 - 120
Chrysene	332	272		ug/Kg		82	40 - 120
Dibenz(a,h)anthracene	332	331		ug/Kg		100	50 - 120
Fluoranthene	332	293		ug/Kg		88	57 - 120
Fluorene	332	270		ug/Kg		81	52 - 120
Indeno[1,2,3-cd]pyrene	332	323		ug/Kg		97	48 - 120
Naphthalene	332	249		ug/Kg		75	46 - 120
Phenanthrene	332	259		ug/Kg		78	48 - 120
Pyrene	332	321		ug/Kg		97	53 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*33 - 120*
Terphenyl-d14	*101*		*35 - 146*

Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

Lab Sample ID: LCSD 720-139862/3-A
Matrix: Solid
Analysis Batch: 139906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 139862

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	331	258		ug/Kg		78	49 - 120	0	20
Acenaphthylene	331	268		ug/Kg		81	52 - 120	3	20
Anthracene	331	285		ug/Kg		86	52 - 120	0	20
Benzo[a]anthracene	331	316		ug/Kg		95	52 - 120	4	20
Benzo[a]pyrene	331	318		ug/Kg		96	54 - 120	4	20
Benzo[b]fluoranthene	331	321		ug/Kg		97	51 - 120	0	20
Benzo[g,h,i]perylene	331	330		ug/Kg		99	48 - 120	4	20
Benzo[k]fluoranthene	331	328		ug/Kg		99	56 - 120	5	20
Chrysene	331	282		ug/Kg		85	40 - 120	4	20
Dibenz(a,h)anthracene	331	340		ug/Kg		103	50 - 120	3	20
Fluoranthene	331	300		ug/Kg		91	57 - 120	2	20
Fluorene	331	270		ug/Kg		81	52 - 120	0	20
Indeno[1,2,3-cd]pyrene	331	333		ug/Kg		100	48 - 120	3	20
Naphthalene	331	249		ug/Kg		75	46 - 120	0	20
Phenanthrene	331	260		ug/Kg		78	48 - 120	0	20
Pyrene	331	324		ug/Kg		98	53 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*33 - 120*
Terphenyl-d14	*104*		*35 - 146*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-139942/1-A
Matrix: Solid
Analysis Batch: 139928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		07/11/13 10:27	07/11/13 14:03	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		07/11/13 10:27	07/11/13 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*106*		*40 - 130*	*07/11/13 10:27*	*07/11/13 14:03*	*1*

Lab Sample ID: LCS 720-139942/2-A
Matrix: Solid
Analysis Batch: 139928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.1	72.3		mg/Kg		87	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*109*		*40 - 130*

Method: 8015B - Diesel Range Organics (DRO) (Continued)

Lab Sample ID: LCSD 720-139942/3-A
Matrix: Solid
Analysis Batch: 139928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 139942

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			83.1	77.4		mg/Kg		93	50 - 150	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*113*		*40 - 130*

QC Association Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

GC/MS Semi VOA

Prep Batch: 139862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	3546	
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	3546	
LCS 720-139862/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-139862/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-139862/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 139906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-139862/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	139862
LCSD 720-139862/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	139862
MB 720-139862/1-A	Method Blank	Total/NA	Solid	8270C SIM	139862

Analysis Batch: 139950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	8270C SIM	139862
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	8270C SIM	139862

GC Semi VOA

Analysis Batch: 139928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-139942/2-A	Lab Control Sample	Total/NA	Solid	8015B	139942
LCSD 720-139942/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	139942
MB 720-139942/1-A	Method Blank	Total/NA	Solid	8015B	139942

Analysis Batch: 139934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	8015B	139942
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	8015B	139942

Prep Batch: 139942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	3546	
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	3546	
LCS 720-139942/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-139942/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-139942/1-A	Method Blank	Total/NA	Solid	3546	

Lab Chronicle

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-1

Lab Sample ID: 720-50816-1

Date Collected: 07/10/13 12:00

Matrix: Solid

Date Received: 07/10/13 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			139862	07/10/13 20:06	AFM	TAL PLS
Total/NA	Analysis	8270C SIM		2	139950	07/11/13 15:43	MQL	TAL PLS
Total/NA	Prep	3546			139942	07/11/13 10:27	MRP	TAL PLS
Total/NA	Analysis	8015B		1	139934	07/11/13 13:39	DCH	TAL PLS

Client Sample ID: CONCRETE COMPOSITE-2

Lab Sample ID: 720-50816-2

Date Collected: 07/10/13 13:00

Matrix: Solid

Date Received: 07/10/13 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			139862	07/10/13 20:06	AFM	TAL PLS
Total/NA	Analysis	8270C SIM		2	139950	07/11/13 16:06	MQL	TAL PLS
Total/NA	Prep	3546			139942	07/11/13 10:27	MRP	TAL PLS
Total/NA	Analysis	8015B		1	139934	07/11/13 14:08	DCH	TAL PLS

Laboratory References:

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
PCBs	General Sub Contract Method	NONE	

Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50816-1	CONCRETE COMPOSITE-1	Solid	07/10/13 12:00	07/10/13 18:20
720-50816-2	CONCRETE COMPOSITE-2	Solid	07/10/13 13:00	07/10/13 18:20

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Test America 1220 Quarry Lane Pleasanton, CA 94566	Client Project ID: #72008928; Western Forge & Flange	Date Sampled: 07/10/13
		Date Received: 07/11/13
	Client Contact: Dimple Sharma	Date Reported: 07/11/13
	Client P.O.:	Date Completed: 07/11/13

WorkOrder: 1307319

July 11, 2013

Dear Dimple:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#72008928; Western Forge & Flange,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

1307319

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-18428.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: McCampbell Analytical, Inc.				Job #: 720-50816-1
Address: 1534 Willow Pass Road,	Due Date Requested: 7/11/2013			
City: Pittsburg	TAT Requested (days):			
State, Zip: CA, 94565				
Phone:	PO #:			
Email:	WO #:			
Project Name: Western Forge & Flange	Project #: 72006928			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CONCRETE COMPOSITE-1 (720-50816-1)	7/10/13	12:00 Pacific		Solid			X		
CONCRETE COMPOSITE-2 (720-50816-2)	7/10/13	13:00 Pacific		Solid			X		

RUSH

Same day per Angela

ICE/t° 6.2 ✓
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7.11.13 12:05	TAST		7/11/13 1207	MAI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1307319 **ClientCode: TAM**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Dimple Sharma
Test America
1220 Quarry Lane
Pleasanton, CA 94566
(925) 484-1919 FAX: (925) 600-3002

Email: dimple.sharma@testamericainc.com
cc:
PO:
ProjectNo: #72008928; Western Forge & Flange

Bill to:
Accounts Payable
Test America
P.O. Box 2912
North Canton, OH 44720
SEND HARDCOPY

Requested TAT: 0 day

Date Received: 07/11/2013
Date Printed: 07/11/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1307319-001	Concrete Composite -1 (720-50816-1)	Solid	7/10/2013 12:00	☐	A											
1307319-002	Concrete Composite -2 (720-50816-2)	Solid	7/10/2013 13:00	☐	A											

Test Legend:

1	8082A_PCB_Solid	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

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

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Test America** Date and Time Received: **7/11/2013 12:32:54 PM**

Project Name: **#72008928; Western Forge & Flange** LogIn Reviewed by: Melissa Valles

WorkOrder N°: **1307319** Matrix: Solid Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 6.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Test America 1220 Quarry Lane Pleasanton, CA 94566	Client Project ID: #72008928; Western Forge & Flange	Date Sampled: 07/10/13
		Date Received: 07/11/13
	Client Contact: Dimple Sharma	Date Extracted: 07/11/13
	Client P.O.:	Date Analyzed: 07/11/13

Polychlorinated Biphenyls (PCBs) Aroclors by GC-ECD*

Extraction Method: SW3550B | Analytical Method: SW8082 | Work Order: 1307319

Lab ID	1307319-001A	1307319-002A			Reporting Limit for DF =1	
Client ID	Concrete Composite - 1 (720-50816-1)	Concrete Composite - 2 (720-50816-2)				
Matrix	S	S				
DF	1	1			S	W
Compound	**Concentration**				mg/kg	ug/L
Aroclor1016	ND	ND			0.05	NA
Aroclor1221	ND	ND			0.05	NA
Aroclor1232	ND	ND			0.05	NA
Aroclor1242	ND	ND			0.05	NA
Aroclor1248	ND	ND			0.05	NA
Aroclor1254	ND	ND			0.05	NA
Aroclor1260	ND	ND			0.05	NA
PCBs, total	ND	ND			0.05	NA
Surrogate Recoveries (%)						
%SS:	130	128				
Comments	h4	h4				

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

h4) sulfuric acid permanganate (EPA 3665) cleanup

CDPH ELAP 1644 ♦ NELAP 12283CA CK Analyst's Initial Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8082

W.O. Sample Matrix: Solid | QC Matrix: Soil | BatchID: 79287 | WorkOrder: 1307319

EPA Method: SW8082 **Extraction: SW3550B** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aroclor1260	N/A	0.15	N/A	N/A	N/A	110	N/A	N/A	70 - 130
%SS:	N/A	0.050	N/A	N/A	N/A	130	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 79287 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1307319-001A	07/10/13 12:00 PM	07/11/13	07/11/13 2:32 PM	1307319-002A	07/10/13 1:00 PM	07/11/13	07/11/13 4:28 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720 - 50816

147097

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Cem Atabek	Site Contact: Melissa Terry	Date: 7/10/13	COC No. 1
Cem Atabek	Tel/Fax: 510-343-3000/510-343-3001	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
1956 Webster Street	Analysis Turnaround Time			Sampler: Melissa Terry
Oakland, CA 94612	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(510) 343-3000 Phone	TAT if different from Below _____			Walk-in Client
(510) 343-3001 FAX	☐ 2 weeks			Lab Sampling:
Project Name. Western Forge & Flange	☐ 1 week			
Site 540 Cleveland Avenue, Albany	☐ 2 days			Job / SDG No..
P O # 401823001	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	PAHs (8270 SIM)	TPHd & TPHmo (8015M)	PCBs (8082)	Sample Specific Notes.
Concrete Composite - 1	7/10/2013	12:00	C	Solid	1	x	x	x	
Concrete Composite - 2	7/10/2013	13:00	C	Solid	1	x	x	x	

RUSH

720-50816 Chain of Custody

Preservation Used: (1= Ice,) 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5.1°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by: MJerry	Ninyo & Moore	7/10/13 1650	Received by:	TAF	7-10-13 1650
Relinquished by:	TAF	7/10/13 1820	Received by:	TAP	7/10/13 1820
Relinquished by:	Company	Date/Time	Received in Laboratory by:	Company	Date/Time

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

7/11/2013

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-50816-1

Login Number: 50816

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	