

**REVISED DATA GAP INVESTIGATION REPORT  
AND CORRECTIVE ACTION PLAN  
WESTERN FORGE & FLANGE  
540 CLEVELAND AVENUE  
ALBANY, CALIFORNIA**

**RECEIVED**

*By Alameda County Environmental Health at 3:55 pm, May 16, 2013*

**PREPARED FOR:**

Mr. Walter R. Pierce  
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**PREPARED BY:**

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May 15, 2013  
Project No. 401823001

May 15, 2013  
Project No. 401823001

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

Subject: Revised Data Gap Investigation Report and Corrective Action Plan  
Western Forge & Flange  
540 Cleveland Avenue  
Albany, California

Dear Mr. Pierce:

In accordance with our Data Gap Work Plan dated October 11, 2012, Ninyo & Moore has prepared this Revised Data Gap Investigation Report and Corrective Action Plan (CAP) for the Western Forge & Flange facility (site) located at 540 Cleveland Avenue in Albany, California. This CAP replaces the original CAP dated January 29, 2013 due to changes in the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, which were updated in February 2013..

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

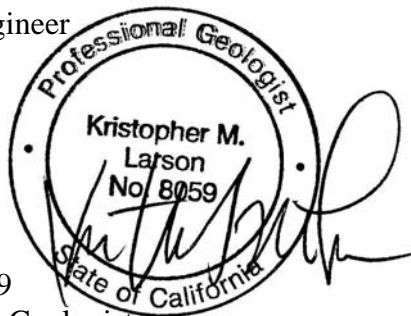
Sincerely,  
**NINYO & MOORE**



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May 15, 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  
Revised Data Gap Investigation Report and Corrective Action Plan  
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

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## **1. INTRODUCTION**

On behalf of the Western Forge & Flange, Ninyo & Moore presents this Revised Data Gap Investigation Report and Corrective Action Plan (CAP) for the property located at 540 Cleveland Avenue in Albany, California. This report follows guidelines presented in our proposals dated October 9, 2012 and January 9, 2013, and the *Conditional Approval of Data Gap Work Plan* letter for the Western Forge & Flange Facility prepared by the Alameda County Environmental Health Department (ACEH) in November 2012. A copy of the *Conditional Approval* is presented in **Appendix A**. This CAP replaces the original CAP dated January 29, 2013 due to changes in the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (ESLs), which were updated in February 2013..

## **2. PURPOSE**

This Data Gap Investigation Report describes field activities and sample analytical results of the additional investigation conducted on site to supplement and complete data gaps from the Remedial Investigation performed by Ninyo & Moore in April 2012 (Ninyo & Moore 2012a). The CAP portion of this report supplements the Site Conceptual Model (SCM) presented in the *Site Conceptual Model and Data Gap Work Plan* prepared by Ninyo & Moore in October 2012 (Ninyo & Moore 2012b), and will evaluate the significance of environmental contamination and alternatives for site remediation. Sections of the SCM will be updated in the CAP section of this report, including the nature and distribution of impacts resulting from our Data Gap Investigation. The tables and figures presented in the 2012 SCM will also be updated based on the results from the Data Gap Investigation.

### **2.1. Site Location**

The site is located at 540 Cleveland Avenue in Albany, County of Alameda, California (Figure 1), and is identified by the Alameda County Assessor's Office as APN 66-2760-14-8. The property is zoned for heavy industrial use. The approximately 1.0 acre site consists of one 25,000 square-foot metal building that is currently unoccupied.

## **2.2. Responsible Agency**

The responsible agency is the ACEH, and the ACEH project manager for the site is Mr. Mark E. Detterman.

## **3. SITE SETTING AND BACKGROUND**

### **3.1. Site Description**

The site consists of a 25,000 square-foot metal industrial building that covers the majority of the rectangular-shaped, approximately 1-acre property. It is bordered to the north by a heavy industrial property (Albany Steel), to the south by an unoccupied building, to the east by Cleveland Avenue and to the west by railroad tracks (Southern Pacific Railroad Company).

### **3.2. Site Operational History**

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

Western Forge & Flange Company closed the facility in 2007 and moved its operation to Texas.

### **3.3. Site Geology and Hydrology**

The site is located within the Coast Range Geologic Province. The San Francisco Bay and Bay margin geology was formed by a series of Mesozoic and Cenozoic aged oceanic crust and volcanic arc terranes accreted to the continent. Uplift also occurred due to transpression



along the Hayward Fault Zone during the Cenozoic. Bedrock geologic units include Jurassic Coast Range Ophiolite, Late Jurassic-Early Cretaceous Franciscan Complex and Knoxville Formation, and the Late Cretaceous Great Valley Sequence. Late Quaternary deposits consisting of Pleistocene to Holocene alluvial fan deposits overly the bedrock formations within the site area.

No natural surface water bodies, including ponds, streams, or other bodies of water, are present on the site. The San Francisco Bay is located approximately 500 feet west of the site. During the soil boring advancement conducted for this Data Gap Investigation, shallow groundwater was encountered between 2.5 and 5.5 feet below ground surface (bgs) in all but one of the borings. Groundwater was encountered at 1 foot bgs, in boring B-25A, which was attributed to a very shallow, perched groundwater zone that has been documented in previous environmental assessments. The groundwater flow direction is estimated to be west, towards the San Francisco Bay; however due to the site proximity to the San Francisco Bay, tidal fluctuation may have an impact to site groundwater gradient.

### **3.4. Previous Environmental Assessments**

This section summarizes the previous investigations conducted prior to 2012. Referenced Ninyo & Moore figures are indicated in bold. The results of the Remedial Investigation (RI) and Data Gap Investigation conducted by Ninyo & Moore in April and December 2012, respectively, will be discussed in the conclusion section of this report, and the relevant figures, **Figures 3 through 8**, have been updated to include data from both investigations.

The site has been the subject of several environmental assessments dating back to 1984. A Press Release discussing the Cleanup of Western Forge & Flange Sites contained in a Western Forge & Flange Company, Albany Site Correction Documentation Report, prepared by Brown & Caldwell (B&C), dated May 1985 (B&C, 1985) indicated that site contamination was first discovered in 1983 relating to process cooling water and storm water runoff carrying lead, nickel, copper, and oil and grease from inside the facility to an on site storm drain (located in the western section of the property) and adjacent properties.

Western Forge & Flange removed approximately 200 cubic yards of contaminated soil on site, and constructed barriers to stop materials from flowing off site. Verification soil sampling was also conducted subsequent to site remediation. Verification sample results from the 1985 site remediation activities are presented on **Figure 9**. A letter from the Department of Toxic Substances Control (DTSC) dated November 1985 (DTSC 1985) indicated that the site was fully mitigated and that no further action was necessary. The cleanup goals (CGs) used during the 1985 excavation are no longer applicable and based on the verification sample results, residual impacts remained in soil which exceed the current CGs established for the site.

More recent investigation activities were conducted by Chemical Data Management Systems (CDMS) between 2008 through 2010. The following background is based on documents prepared by CDMS from May 2009 through December 2010.

Subsurface sampling was conducted by CDMS in October and November 2008. Sampling locations and areas of concern are presented on Figure 2 in the CDMS Subsurface Environmental Activities Report dated December 14, 2010 (CDMS 2010). Elevated concentrations of total petroleum hydrocarbons (TPH) with respect to the San Francisco Regional Water Quality Control Board (SFRWQCB) ESLs were detected in shallow soil in the hazardous waste storage, oil/water separator, ring roller, and boiler areas. TPH as hydraulic oil (TPHho) concentrations in soil from this sampling event are presented on Figure 3 of the CDMS Report. Groundwater samples were also collected in several areas, and various metals were reported in groundwater above regulatory guidelines used for comparison.

In January 2009, TPH-impacted soil was excavated in several areas, (referred to by the sample point locations on Figure 3 and excavation boundaries on Figure 4 in the CDMS Report) including the hazardous waste storage area (Area 5), the boiler area (Area 6B), the Ring Roller area (Area 106), and an area approximately 10 to 20 feet southeast of the Ring Roller area (Area 107). Additional excavation occurred adjacent to two existing pits (Pits 1 and 2), reportedly due to hydraulic oil being encountered in the Ring Roller Pit excavations. An excavation was also conducted near a waste oil storage area in the western section of the

building. Excavation was reportedly discontinued after the slab was removed, as perched groundwater was encountered just beneath the slab, and no contamination was reported.

Results of excavation samples for Areas 5, 6B, and 107 are not discussed in CDMS' Closure Report, other than a mention of the subsurface sedimentology and depth to a perched groundwater zone. Results of the Pit 1 and 2 excavations were discussed, and it appears no impacts to soil around these pits were observed based on the data provided. TPHho concentrations in soil samples from these excavations are presented on Figure 4 of the CDMS Report.

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

In October 2010, CDMS completed a Data Gap Work Plan and reported the results in documentation dated December 2010. Sample results provided for several groundwater samples, including, RRP, W-101, W-102, W-103, W-105, W-107, W-108, and W-111 and B1001 and B1002, indicated that TPHho concentrations in groundwater exceeded ESLs in one water sample, which was collected from the Ring Roller Pit. Concentrations of TPHho in groundwater for samples collected by CDMS are presented on Figure 5 of the CDMS Report.

In addition, CDMS reported that various samples exceeded ESLs for metals including lead, cadmium, copper, nickel and zinc. Copper was only analyzed in samples B1001, B1002, and RRP. Zinc exceeded the Gross Contamination ESL in sample W-111. No description of the depth that groundwater was encountered at or description of sampling methodology was included in the report, however boring logs indicate that soil was saturated below 6 feet in B-1001 and wet below 9 feet in B-1002.

Metals were also reported in soils above ESLs in soil samples collected from 6 inches bgs at boring B-1002 (copper) and SB-111 (nickel and zinc).

TPHho was detected in shallow soils (surface to 6 inches) at concentrations ranging from 480 and 650 milligrams per kilogram (mg/kg) at both B-1001 and B1002, well above TPHho results in deeper soil samples. Soil samples were collected in each of these borings to 10 feet bgs.

Post-excavation verification sample results collected during the CDMS remedial activities are presented on **Figure 9**. Confirmation samples from Area 107 indicated elevated concentrations of TPHho in the north, west and south wall samples, ranging from 9,400 to 30,000 mg/kg. Several metals were also elevated in comparison to the other confirmation samples from the north wall, including total chromium at 180 mg/kg. No indication of sample depths was included in the CDMS report. Concentrations of constituents of concern were very low and/or below ESLs in the bottom sample collected in Area 107.

Confirmation samples collected from the Ring Roller (Area 106) indicated high concentrations of TPHho in the north (10,000 mg/kg) and south (24,000 mg/kg) walls. The concentration of TPHho from the west wall sample was below the residential ESL.

Confirmation sample results from Area 5 indicated an elevated concentration of TPHho (1,300 mg/kg) in the west wall confirmation sample. The confirmation sample collected from the remaining sidewalls and bottom sample were either below reporting limits or very low (below Residential ESLs) for hydraulic oil.

The confirmation samples collected from the sidewall and bottom samples from Area 6B were either below reporting limits or below ESLs for TPHho. The highest hydraulic oil concentration was 120 mg/kg in south wall sample. Elevated concentrations of lead and zinc were detected in the south wall compared to the other confirmation samples.

#### **4. PRE-FIELD ACTIVITIES**

Pre-field activities consisted of the preparation of a Site Health & Safety Plan (HASp), obtaining the appropriate permits for the advancement of soil borings, and underground utility location.

#### **4.1. HASP**

Ninyo & Moore prepared a Site HASP for activities specifically conducted by Ninyo & Moore and its sub-contractors. During the course of the project, oversight personnel conducted a “tail gate” safety meeting each morning prior to the beginning of work, and safety items were addressed and reviewed. Personnel working on the site acknowledged their understanding of the HASP and agreed to abide by its provisions.

#### **4.2. Permits**

Ninyo & Moore obtained a permit from the Alameda County Public Works Agency (ACPWA) for the advancement of soil borings. A copy of the permit is included in **Appendix B**.

#### **4.3. Utility Location**

Prior to conducting field activities, Ninyo & Moore marked proposed soil boring locations with white paint. Underground Service Alert (USA) was notified more than 48 hours prior to conducting field activities to mark the locations of subsurface utilities entering the property.

### **5. SOIL ASSESSMENT**

#### **5.1. Advancement of Soil Borings**

From December 17 through December 19, 2012, Ninyo & Moore and their subcontracted driller, Penecore Drilling (Penecore), mobilized to the site for the advancement of soil borings. Penecore is a licensed California C-57 Well Drilling Contractor (# 906899).

Twenty-two borings were advanced at the site with a Geoprobe® direct push drill rig to between 5 and 10 feet bgs, for the collection of soil samples. An additional six step-out soil samples were also collected between 1 and 4 feet bgs on January 16, 2012 in the vicinity of boring B-25A. The samples were collected to delineate the vertical and lateral extent of several metals reported above ESLs in boring B-25A.

Groundwater samples were collected in 17 of the 28 total borings locations.

Borings were advanced at the approximate locations indicated in the Work Plan, with the following exceptions:

- Boring B-8B was shifted west of its proposed location and renamed B-8C due to refusal.

The approximate boring locations are indicated on **Figure 2**.

During drilling activities, a lithology description of the soil was recorded for all borings with the exceptions of the step-out samples collected near B25-A, and the soil was screened for volatile organic vapors using a photoionization detector (PID). Samples for laboratory analyses were collected in each soil boring from the depths specified in the Work Plan. Field observations, such as PID readings, odors, or staining, were recorded in the field notes, if observed. Boring logs describing the lithologic and physical characteristics observed during boring advancement are presented in **Appendix C**.

Soil samples were collected in containers specific to their analysis, including 8-ounce glass jars for analyses of TPH as hydraulic oil, CAM 17 metals and hexavalent chromium and polycyclic aromatic hydrocarbons (PAHs). Containers were affixed with labels and marked with indelible markers. All samples were packed in coolers with ice under chain of custody, for daily transportation to Test America, a National Environmental Laboratory Accreditation Program (NELAP)-certified analytical laboratory located in Pleasanton, California.

## **5.2. Soil Sample Laboratory Analysis**

Continuous soil cores were collected in each boring and recovered in acetate liners and glass jars. Soil samples were analyzed for:

- TPH as hydraulic oil by EPA Method 8015B using Silica Gel Cleanup;
- CAM 17 Metals by EPA Methods 6010B/7471A, and hexavalent chromium using EPA Method 7196A; and
- PAHs by EPA Method 8270SIM.

### **5.3. Decontamination Procedures**

All equipment that came into contact with potentially contaminated soil or water was decontaminated consistently to assure the quality of samples collected. Decontamination occurred prior to and after each use of a piece of equipment. All drilling and sampling devices used were decontaminated using a steam cleaner. Disposable equipment intended for one-time use was not decontaminated. Nitrile gloves were changed between each sample collection to minimize the likelihood of cross contamination.

## **6. GROUNDWATER ASSESSMENT**

To characterize the groundwater at the site and determine the extent of the hydrocarbon and impacts to groundwater, groundwater samples were collected from 17 of the 28 soil borings advanced during this investigation.

### **6.1. Groundwater Sampling**

Groundwater samples were collected from selected borings, where groundwater was available. The samples were collected from each boring using a peristaltic pump with new tubing. Groundwater samples were collected in the appropriate laboratory supplied containers, labeled, and stored in a cooler with ice under chain of custody documentation for transport to the analytical laboratory. Samples for analysis of TPH as hydraulic oil were collected first and the pump was run at low speed to minimize disturbance of groundwater.

Groundwater samples analyzed for metals including hexavalent chromium were filtered by Test America immediately upon sample receipt.

### **6.2. Groundwater Sample Laboratory Analysis**

Groundwater samples were laboratory analyzed for:

- TPH as hydraulic oil by EPA Method 8015B with silica gel cleanup;
- CAM 17 Metals using EPA Method 6010B/7471A;
- Hexavalent chromium using EPA method 7196A; and
- Salinity by SM 2520B and total dissolved solids (TDS) using SM2540C.

### **6.3. Decontamination Procedures**

All equipment that came into contact with potentially contaminated soil or water was decontaminated consistently to assure the quality of samples collected. Decontamination occurred prior to and after each use of a piece of equipment. All drilling and sampling devices used were decontaminated using a steam cleaner. Disposable equipment intended for one-time use was not decontaminated. Nitrile gloves were changed between each sample collection to minimize the likelihood of cross contamination.

## **7. INVESTIGATION RESULTS**

### **7.1. Site Sedimentology**

Based on the lithology of the borings advanced during this RI, the shallow subsurface at the site is composed of alluvium consisting predominantly of silty sands, with some silts and rare clays. The predominant colors are greenish gray and black, turning darker with depth.

### **7.2. Regulatory Screening Criteria**

The regulatory screening criteria selected for comparison to soil and groundwater sample result are the SFRWQCB ESLs for Commercial/Industrial Land Use, Shallow Soils, where groundwater is not a current or potential source of drinking water (ESLs Table B-2, February 2013). These ESLs have been selected as CGs for the site with the exception of lead which will be compared to the site-specific CG of 200 mg/kg (which is below the Table B-2 ESL for lead of 320 mg/kg) and cobalt which will be compared to a site specific CG of 20 mg/kg. The development of this site specific CG for cobalt is discussed further in Section 12.1 below.

### **7.3. Soil Analytical Results**

Our soil sample analytical results discussed below are presented based on the samples exceeding site CGs. Laboratory analytical reports and chain of custody documentation are



included in **Appendix D**. Soil sample analytical results for TPH as hydraulic oil, Title 22 Metals and PCBs are presented on **Table 1**.

#### **7.3.1. TPHs as Hydraulic Oil (TPHho)**

Only one soil sample contained TPHho above the ESL/CG of 2,500 mg/kg. The sample collected from boring B8C@4-5 was reported at 4,300 mg/kg (**Figure 3**).

#### **7.3.2. Title 22 Metals**

Title 22 Metal results exceeding CGs are presented on **Figure 4** and include the following:

- No ESL is established for total chromium; however hexavalent chromium was analyzed in sample B-25A@1-2 where the most elevated concentration of total chromium (350 mg/kg) was detected. Hexavalent chromium was not detected above the laboratory detection limit of 0.99 mg/kg in this sample, which is well below the ESL of 8.0 mg/kg.
- Cobalt was detected at a concentration of 29 mg/kg in sample B-15C@1, exceeding the CG of 20 mg/kg.
- Copper was detected at concentrations of 730 mg/kg in sample B-10A@0.5-1 and 490 mg/kg in sample B-25A@1-2, exceeding the CG of 230 mg/kg.
- Lead was detected at concentrations exceeding the CG of 200 mg/kg in samples B-12A@4-5 (270 mg/kg), B-24A@4-5 (260mg/kg) and B-25A@1-2 (240 mg/kg).
- Molybdenum was detected at concentrations exceeding the CG of 40 mg/kg in samples B-10A@0.5-1 (57 mg/kg) and B-25A@1-2 (82 mg/kg).
- Nickel was detected at concentrations exceeding the CG of 150 mg/kg in samples B-10A@0.5-1 (450 mg/kg), B-24A@4-5 (200 mg/kg), B-25A@1-2 (700 mg/kg), and B-25A-3.0 (240 mg/kg), and B-25A-E-1.0 (2,500) mg/kg.

#### **7.4. Polycyclic Aromatic Hydrocarbons (PAHs)**

Polycyclic aromatic hydrocarbons (PAHs) were not reported above their respective ESLs.

## 7.5. Groundwater Analytical Results

Groundwater sample analytical report data is compared to Table F-1b ESLs where groundwater is not a current or potential drinking water source in the following sections. Laboratory analytical reports and chain of custody documentation are included in **Appendix D**. A summary of the groundwater sample analytical results for TPHho, Title 22 Metals and hexavalent chromium are presented on **Table 2** and TDS and salinity are presented in **Table 3**. TPHho in groundwater is presented on **Figure 5**, Title 22 Metals exceeding ESLs are presented on **Figure 6**, hexavalent chromium in groundwater is presented on **Figure 7**, and total dissolved solids and salinity in groundwater is presented on **Figure 8**.

### 7.5.1. TPHs as Hydraulic Oil (TPHho)

TPHho was detected above the Table F-1b ESL of 640 µg/L from borings B-8C (2,200 µg/L) and B-10A (1,100 µg/L).

### 7.5.2. Title 22 Metals

Barium, beryllium, cobalt, copper, hexavalent chromium, lead, molybdenum, nickel, vanadium and zinc concentrations in groundwater exceeded their respective Table F-1b ESLs in several samples. A summary of each metal is below.

- Barium and beryllium were reported exceeding the Table F-1b ESL of 1,000 µg/L and 0.53 µg/L, respectively, in borings B-9A (3,800 µg/L and 11 0.53 µg/L) and B-10A (1,100 µg/L and 2.2 µg/L).
- Cobalt was reported exceeding the Table F-1b ESL of 3 µg/L in borings B-5A, B-9A, B-10A, B-17A, B-22B, B-25A, UG-1, and UG-2. Concentrations ranged from 3.3 µg/L in B-17A to 110 µg/L in B-9A.
- Copper was reported exceeding the Table F-1b ESL of 3.1 µg/L in borings B-9A, B-10A, B-22A, and B-24A. Concentrations ranged from 26 µg/L in B-24A to 200 µg/L in B-9A.
- Lead was reported exceeding the Table F-1b ESL of 2.5 µg/L in borings B-9A, B-10A, B-15C, B-17A, B-22A, B-22B, and B-24A. Concentrations ranged from 5.6 µg/L in B-24A to 970 µg/L in B-9A.

- Molybdenum was reported exceeding the Table F-1b ESL of 240 µg/L in borings B-22A (870 µg/L) and B-22B (390 µg/L).
- Nickel was reported exceeding the Table F-1b ESL of 8.2 µg/L in borings B-5A, B-8C, B-9A, B-10A, B-17A, B-22A, B-22B, B-24B, and B-25A. Concentrations ranged from 11 µg/L in B-24B to 180 µg/L in B-9A.
- Vanadium was reported exceeding the Table F-1b ESL of 19 µg/L in borings B-9A (340 µg/L) and B-10A (68 µg/L).
- Zinc was reported exceeding the Table F-1b ESL of 81 µg/L in borings B-9A, B-10A, B-15B, B-22A, and B-25A. Concentrations ranged from 99 µg/L in B-15B to 1,800 µg/L in B-9A.

### **7.5.3. Hexavalent Chromium**

Hexavalent chromium concentrations in groundwater did not exceed the Table F-1b ESL of 11 µg/L in any of the groundwater samples collected on site during this investigation.

### **7.5.4. Total Dissolved Solids and Salinity Results**

Total dissolved solids and salinity results are included in **Table 3**. Total dissolved solids ranged from 560 mg/L in UG-1 to 7,600 mg/L in B-10A. Salinity ranged from 400 mg/L in B-10A to 3,100 in B-20A.

## **8. INVESTIGATION DERIVED WASTE**

### **8.1. Disposal of Investigation Derived Waste**

Soil cuttings and decontamination oils generated from field activities were placed into two properly labeled 55-gallon drums, and stored on-site near the center of the building. Gloves and miscellaneous trash remaining from the site sampling activities were stored in plastic bags and disposed of as municipal waste. The drums are pending removal at this time.

## 9. SAMPLE QUALITY ASSURANCE/QUALITY CONTROL

### 9.1. Sample Conditions

No sample receiving problems were reported by Test America.

### 9.2. Surrogate Recoveries

Due to the level of dilution required for the PAH analysis for sample B-8C@4-5, surrogate recoveries were not reported. Surrogate recoveries were all within the limits established by the laboratory for all other samples.

### 9.3. Laboratory QA/QC Samples

- **General Chemistry:** Method SM 2540C: The method blank for preparation batch 127513 contained TDS above the reporting limit (RL). The associated sample contained detects for this analyte at concentrations greater than 10 times the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.
- **Metals:** Method CA WET Citrate: Insufficient sample was provided to perform the leaching procedure with the required 50g for the following sample: 46796-1. The volume of leaching fluid was adjusted proportionally to maintain a 10:1 ratio of leaching fluid to weight of sample. Reporting limits (RLs) are not affected.

### 9.4. QA/QC Conclusions

The laboratory analyses followed the approved method and included acceptable QA/QC.

## 10. SUMMARY

Based on the combined RI and Data Gap Investigation results, Ninyo & Moore presents the following findings regarding the locations of environmental impacts on-site:

### *Total Petroleum As Hydraulic Oil in Soil*

TPHho was reported in soil samples exceeding the ESL/CG of 2,500 mg/kg at the following locations and depths:

- Southwest of Area 5 in boring B-14 at 1 foot bgs.

- East of the Ring Roller Pit in boring B-19 in samples collected from the surface and 1 foot bgs.
- North of the Ring Roller Pit in borings B-8A and B-8C in the soil samples collected at 1 foot bgs in boring B-8A and between 4 to 5 feet bgs in boring B-8C.
- South of Forge Area Pit 2 in boring B-7 in the soil samples collected at 0.5 and 2 feet bgs.

### ***Title 22 Metals in Soil***

Title 22 Metals, including cobalt, copper, lead, molybdenum, and nickel, were reported at concentrations exceeding their respective ESLs/CGs at the following locations and depths:

- Elevated lead was detected southeast of Area 107 in boring B-12 at a depth of 4.0 to 5.0 feet bgs.
- Elevated copper, molybdenum, nickel and cobalt were detected southwest of the Ring Roller Pit in boring B-10A at a depth of 0.5 to 1 foot bgs.
- Elevated lead and nickel were detected near the northwestern corner of the site in boring B-24A at a depth of 4 to 5 feet bgs.
- Elevated copper, lead, molybdenum, and nickel were detected near the northwestern corner of the site in boring B-25A at a depth of 1 to 2 feet bgs. Impacts from nickel were also detected at 3 feet bgs in boring B-25A and at 1 and 2 feet bgs in boring B-25 A-E.

### ***Polycyclic Aromatic Hydrocarbons (PAHs) in Soil***

PAHs were not reported exceeding their respective ESLs in the samples analyzed.

### ***Total Petroleum Hydrocarbons as Hydraulic Oil (TPHho) in Groundwater***

TPHho was reported in groundwater samples exceeding the Table F-1b ESL of 640 µg/L at the following locations:

- Southwest of the Ring Roller Pit include in borings B-10 (1,000 µg/L) and B-10A (1,100 µg/L).
- Northwest of the Ring Roller Pit in borings B-8A (7,300 µg/L) and B-8C (2,200 µg/L).
- Northwestern corner of the site in boring B-24 (830 ug/L).

### ***Title 22 Metals in Groundwater***

Title 22 metals in groundwater include the following:

- Area 107 (including borings B-11, B-12A, B-17, B-17A and B-18). Groundwater samples collected from this area included B-17A, where cobalt, lead and nickel were reported above Table F-1b ESLs, and B-18 where barium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc were also reported above ESLs.
- West of Area 5 (including borings B14 and B-14A). Only hexavalent chromium was analyzed in this sample. Results from hexavalent chromium are discussed in the next section.
- East of the Ring Roller Pit (including borings B-19). No groundwater samples were collected from this area.
- West of the Ring Roller Pit (including borings B-9, B-9A, B-10 and B-10A). Several metals were reported above their respective Table F-1b ESLs in all borings in this area including barium, beryllium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc.
- North of the Ring Roller Pit (including borings B-6, B-8A, and B-8C). Barium, cobalt, molybdenum, nickel and vanadium were reported above the Table F-1b ESL from borings in this area.
- Forge and Pit 2 Area (including borings B-4, B-7, B-20, B-20A, B-21 and B-21A). Only B-21 was analyzed in this area; antimony, barium and cobalt were reported above Table F-1b ESLs.
- Pit 1 Area (including B-22, B-22A, B-22B, B-23, and B-23A). Title 22 Metals were not analyzed in B-22 or B-23A. Several Title 22 Metals were reported above their Table F-1b ESLs in samples B-22A, B-22B, and B-23 including antimony, cobalt, copper, lead, molybdenum, nickel, and zinc.
- Oil/Water Separator and Waste Oil Area (including boring B-1, B-2, B-5, and B-5A). Borings B-1, B5 and B-5A were analyzed for Title 22 Metals. Arsenic, barium, cobalt and nickel were above Table F-1b ESLs in this area.
- Northwestern Corner (including borings B-24, B-24A, B-24B, B-25, B-25A and associated step-out samples, B-26, B-27, and B-28). Borings B-24, B-24A, B-24B, and B-25A were analyzed for Title 22 metals; barium, cobalt, copper, lead, molybdenum, nickel and zinc were reported above Table F-1b ESLs in various borings.
- Welding Area and Parking Lot (including borings UG-1 and UG-2). Cobalt was reported above Table F-1b ESLs in both borings.

### ***Hexavalent Chromium in Groundwater***

Hexavalent chromium was not reported above the Table F-1b ESL of 11 µg/L in any of the groundwater samples collected on site during the Data Gap Investigation. Due to discrepancies in

laboratory reporting for samples collected during the RI sampling event, hexavalent chromium results from that event will not be discussed within this section.

### ***Total Dissolved Solids and Salinity***

Total dissolved solids ranged from 560 mg/L in UG-1 (Parking Lot) to 7,600 mg/L in B-10A (West of the Ring Roller Pit Area), and equaled or exceeded the RWQCB Basin Plan limit of 3,000 milligrams per liter (mg/L) in two borings (B-10A and B-20A) located in the southwestern and northern section of the site building. Salinity ranged from 400 mg/L in B-10A to 3,100 in B-20A. According to the RWQCB Basin Plan, salinity in marine waters is measured at 3,000 mg/L, and two samples (B-8C and B-20A) located in the central-western and northern section of the building exceeded that threshold.

## **11. CONCLUSIONS AND RECOMMENDATIONS**

The following conclusions relate to our findings during the data gap investigation and previous RI for site soil and groundwater:

- The extent of TPHho impacts in soil exceeding the ESL/CG is concentrated in the western section of the site building in the area of the Ring Roller Pit, Area 107, and south of Forge Area Pit 2. The depths of TPHho impacts in these areas ranges from the surface to 5 feet bgs south of Forge Area Pit 2; the surface to 6 feet bgs on the north and west sides of the Ring Roller Pit; 3 to 6 feet bgs in Area 107; and the surface to 2 feet bgs on the east side of the Ring Roller Pit.
- The extent of impacts from metals in soil exceeding the ESLs/CGs is concentrated in the southwestern section of the site building in the areas of borings B-10A and B-12A, and in the northwestern corner of the site in the areas of borings B-25A and B-24A. The depths of metals impacted soil are anticipated to be from the surface to 3 feet bgs in the area if boring B-10A; from 3 to 6 feet bgs in the area of boring B-12A; from the surface to 4 feet bgs in the area if boring B-25A; and from 3 to 6 feet bgs in the area of boring B-24A.
- No PAHs were detected in soil at concentrations exceeding ESLs.
- Groundwater results indicated that most of the western section of the site is impacted with TPHho above ESLs with elevated concentrations ranging from 1,000 to 7,300 µg/L in the Ring Roller Pit vicinity. Groundwater within the entire site footprint is impacted within various Title 22 Metals exceeding ESLs including barium, beryllium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc. Hexavalent chromium in groundwater was reported exceeding ESLs in several samples during the RI, however the results were suspicious because total chromium was reported lower than hexavalent chromium in some samples. Based on those results, we analyzed hexavalent chromium in several more samples during the Data Gap investigation, and none were reported above the ESL.

- Total dissolved solids and salinity were reported above thresholds outlined in the RWQCB Basin Plan in groundwater samples collected within the southwestern, central-western, and northern sections of the site building.
- Based on the analytical results from the RI and Data Gap Investigation, Ninyo & Moore recommends preparation and implementation of a Corrective Action Plan to remediate constituent of concern impacted site soil and groundwater beneath the western section of the site building and within the exposed soil outside and adjacent to the northwest corner of the building. Constituents of concern include TPHho and metals for soil and groundwater.

## **12. CORRECTIVE ACTION PLAN**

Based on the findings of the RI and Data Gap Investigation, we have prepared the following CAP to evaluate remedial options relating to the hydraulic oil and metal impacted soil and groundwater on site. The following sections discuss potentially appropriate remedial alternatives for soil and groundwater and the evaluation of these remedial alternatives, recommended remedial scope of services, cleanup goals, remedial action scope, an evaluation of remedial alternatives, and a description of the preferred remedial action alternative. A site conceptual model was prepared in October 2012 and discussed proposed remediation criteria, nature and distribution of impacts, contaminant migratory pathways, potentially exposed populations, and fate and transport of constituents of concern. Therefore, these tasks will not be discussed within this report with the exception of an updated proposed remediation criteria section which is based on the Data Gap Investigation sampling results.

### **12.1. Proposed Cleanup Goals (CGs)**

The proposed remediation CGs for site soil are 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) with the exception of lead and cobalt whose site specific CGs are 200 mg/kg and 20 mg/kg, respectively. The development of the cobalt CG is discussed further below, and the use of 200 mg/kg as the cleanup goal for lead is acceptable 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 concentrations of a given constituent of concern 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 February 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.

Cobalt was reported in numerous samples above the February 2013 Table B-2 ESL of 1.6 mg/kg. Cobalt naturally occurs in soil throughout the region of the site at concentrations which typically exceed the ESL of 1.6 mg/kg. Therefore statistical analysis of the site-specific cobalt data set was performed to determine an upper-bound background cobalt concentration for the site and develop a site-specific CG for cobalt. Statistical evaluation was performed for site-specific cobalt 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 DTSC guidance document titled *Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals*, dated January 16, 2009. Although this DTSC guidance document was developed for evaluation of arsenic, it is also applicable for cobalt as both metals naturally occur at background concentrations which exceed regulatory guidelines.

An upper-bound background concentration of 23 mg/kg was determined for cobalt in soil data using the Quartile Analysis method as presented in **Appendix E**. Concentrations of cobalt exceeding 23 mg/kg are considered to be outliers (impacted soil). Cobalt was detected in only one sample (B10A @ 0.5-1) exceeding the upper-bound background concentrations of 23 mg/kg. This highest cobalt concentration of 29 mg/kg was removed from the data set before performing further statistical evaluation to develop a CG for cobalt. As presented in **Appendix E**, the 98<sup>th</sup> percentile of the adjusted cobalt data set (with outliers removed) is

approximately 20 mg/kg, which was selected as the CG for cobalt in accordance with the guidelines of the DTSC guidance document.

## **12.2. Potentially Appropriate Remedial Alternatives**

Based on site conditions and Ninyo & Moore's experience with similar projects, a list of potentially appropriate remedial approaches has been assembled.

### **12.2.1. Soil**

Targeted removal – Consists of excavation and subsequent disposal of impacted soil in isolated areas of environmental concern. Prevents contact with material, as material is removed.

In-place treatment – Typically utilized in cases where removal is impractical due to volumes of soil to be removed or site constraints preventing removal (structures, utilities, etc.).

No action – Requires no remedial action with the exception of possible periodic monitoring and sampling. Practical where future contact with contaminants is unlikely and where contaminants are not expected to migrate from the source and with time ultimately degrade/decline in concentration.

### **12.2.2. Groundwater**

Targeted removal – Consists of extraction and subsequent disposal of impacted groundwater in isolated areas of environmental concern. Prevents contact with groundwater, as it is removed.

In-place treatment – Typically utilized in cases where removal is impractical due to volumes of groundwater to be removed or site constraints preventing removal (structures, utilities, etc.).

Natural attenuation – Requires no remedial action. Practical where: impacted areas are isolated and contaminant concentrations are not so high that they warrant active remediation, contaminant source areas have been removed, future contact with groundwater is unlikely, contaminants are not expected to migrate from the source and with time ultimately decline in concentration as contaminants are amenable to natural degradation processes.

### **12.3. Evaluation of Remedial Alternatives**

Ninyo & Moore completed an evaluation of these remedial alternatives based on nine relevant criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (Table 4). As shown in Table 4, the no action alternative is not a practical remediation alternative for site media. Targeted removal and in-place treatment are viable alternatives for soil. Targeted removal, in-place treatment and natural attenuation are viable alternatives for groundwater.

#### **12.3.1. Soil**

Targeted removal – Practical and protective for soil, as the approach removes impacted soil from the site. As the volume of the impacted soil is not prohibitively large, cost for implementation is anticipated to be low to moderate. Agency and community acceptance is anticipated to be high.

In-place treatment – Practical and protective for soil, though short-term effectiveness is reduced relative to removal, as soil remains in place during treatment. Costs for in-place treatment are generally high, due to expenses associated with equipment, materials and labor investment over an extended period of time. Agency and community support are anticipated to be high, though not as high as support for a removal action.

### **12.3.2. Groundwater**

Targeted removal – Practical and protective for groundwater, as the approach removes impacted groundwater from the site. As the volume of the impacted groundwater is not prohibitively large,

In-place treatment – Practical and protective for groundwater, though short-term effectiveness is reduced relative to removal, as groundwater remains in place during treatment. Costs for in-place treatment are generally high, due to expenses associated with equipment, materials and labor investment over an extended period of time. Agency and community support are anticipated to be high, though not as high as support for a removal action.

Natural Attenuation – Practical for the site as impacted areas are localized and contaminant concentrations are not a significant threat to water quality so as to warrant active remediation, contaminant source areas in soil can be removed, future contact with groundwater is unlikely, contaminants are not expected to migrate further from the source and are amenable to natural degradation processes which will restore water quality over time. Cost for implementation is anticipated to be low. Agency and community acceptance is anticipated to be high.

### **12.4. Recommended Remedial Approach**

Based on the review of remedial alternatives, Ninyo & Moore recommends that the targeted removal alternative be selected for impacted soil and a combination of targeted removal and the natural attenuation alternative be selected for impacted groundwater.

## **13. TARGETED REMOVAL**

The 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.

### **13.1. Pre-Project Activities**

The targeted removal approach will involve both on property (removal) and off property (transport and disposal) task elements. To ensure the safety and protection of site workers and off-property populations, a Project and Transport Health and Safety Plan shall be prepared prior to the implementation of remedial actions. This document shall detail all protective measures to be implemented during the removal action, including protective equipment and training requirements for remediation site workers, dust and noise control during on-property activity, and a traffic plan to ensure the utilization of the most appropriate route for site and transport vehicles.

### **13.2. Removal of Pits**

Prior to targeted removal activities, the perimeter walls of the existing pits (Pit 1, Pit 2 and the Ring Roller Pit) will be removed to approximately 5 feet bgs. During pit wall removal activities, soil surrounding the pits will be observed for staining and odors and field-screened for volatile organic compound (VOC) vapors using a PID meter. In the event that significant impacts are observed, the area of impacts will be excavated until significant impacts are no longer observed and the impacted soil will be stockpiled and sampled for waste characterization and disposal. If potentially clean over-burden soil needs to be removed in order to access impacted soil, the potentially clean over-burden soil will be placed in a segregated stockpile for testing to evaluate whether it is suitable for re-use as discussed in Section 13.3 below. If removal of soil is required in order to remove pit walls however no impacts are observed in the soil, the potentially clean soil will be placed into the potentially clean overburden stockpile to be sampled for potential reuse. Confirmation samples would be collected from areas of impacted soil excavation in accordance with the guidelines of described in Section 13.8 below, and the confirmation samples would be analyzed for TPH<sub>ho</sub> and Title 22 Metals. If confirmation samples analytical results exceed CGs, over-excavation and additional confirmation sampling will be performed if necessary.

### 13.3. Targeted Removal

Targeted removal will be performed to remove areas of soil impacted with constituents of concern 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 6 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 clean over-burden, Class II (non-hazardous), or Class I (non-Resource Conservation and Recovery Act [non-RCRA] hazardous).

Potentially clean overburden soil will be removed and stockpiled on a plastic liner in a designated area in the southeastern section of the property. Potentially clean over-burden soil will only be segregated if it observed to be free of staining, odors, and PID readings. Impacted soil will be excavated and stockpiled in the eastern portion of the site and a segregated stockpile will be created for impacted soil which is anticipated to be classified as

non-RCRA hazardous waste. Stockpile locations are presented on **Figure 10** and the anticipated soil classifications for excavation areas are indicated in Table 5. A berm will be constructed around the stockpiles to impede water from draining out of the excavated soil and onto the surrounding soil surface. The stockpiles will be covered with plastic to impede infiltration from rainwater.

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 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. 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.

During and subsequent to excavation activities, confirmation soil samples will be collected and selectively analyzed for TPHho and select Title 22 Metals that were detected at concentrations exceeding CGs in the excavation area being sampled. Confirmation sampling protocol is discussed further in Section 13.8 below. In the event a sidewall or bottom confirmation sample shows contaminant concentrations in excess of CGs, the excavation will be enlarged and re-sampled. The locations of the proposed remedial excavations and in-situ volumes of soil to be excavated are discussed in the following sections.

### **13.3.1. EX1 - 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 copper, lead, molybdenum and nickel above CGs. The lateral boundaries are defined by several step-out soil samples in the north (B-25A-N), south (B-25A-S-1) and west (B25-W-1), which indicated lead and nickel below CGs. The step out sample collected toward the east and adjacent to the western footing of the site building indicated elevated concentrations (above CGs) of nickel to 2 feet bgs (**Figure 4**). 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 building footing 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.

### **13.3.2. EX2 - Northwest Corner of the Site**

Excavation area EX2 is located in the northwestern corner of the site surrounding boring B-24A and CDMS boring SB-111. The area proposed for excavation is based on the surface soil sample from boring SB-111 collected by CDMS which indicated nickel and zinc above ESLs (**Figure 9**) and the sample collected by Ninyo & Moore at 4 to 5 feet bgs in boring B-24A which indicated lead and nickel above ESLs (**Figure 4**). Samples collected from 1, 2, and 3 feet bgs in boring B-24A, and from 3.5, 5.5, 7.5 and 9.5 feet bgs in boring SB-111 did not exceed ESLs. The proposed depth of targeted removal is between 0 and 1 foot bgs to address shallow impacts and between 3 and 6 feet bgs to address the deeper impacts. The lateral bounds will extend from the edge of the building approximately 14 feet towards the west and the excavation will be approximately 9 feet wide. Based on analytical data, approximately 5 CY of soil to be excavated from 0 to 1 foot bgs will be placed in the stockpile for Class II material; soil to be excavated between 1 and 3 feet bgs (estimated volume of 9 CY) will be placed in the clean



overburden stockpile; and soil to be excavated between 3 and 6 feet bgs (estimated volume of 14 CY) will be placed in the stockpile for Class I non-RCRA hazardous waste.

### **13.3.3. EX3 – South of Oil/Water Separator and Waste Oil Area**

Excavation area EX3 is located at the west end of the site building south of the former oil/water separator and waste oil area. The area proposed for excavation is based on verification sample data from the 1985 B&C remedial activities and shallow soil data from the 2008 CDMS investigation activities. The data indicated elevated levels of copper and nickel between 1 to 1.5 feet in depth in B&C verification samples V10 and V12, and elevated copper at 0.5 feet bgs in CDMS boring B1002 (**Figure 9**). Based on the information presented by B&C, it is inferred that the depths of excavation and associated verification samples were measured from below the concrete slab. B&C indicated that the historic excavations in this area extended to approximately 6 inches deep in the area of V10 and approximately 10 inches deep in the area of V12, and the excavations were backfilled with imported clean aggregate base (AB) material. The proposed targeted excavation depth is therefore approximately 2 feet bgs. Excavation area EX3 is approximately 20 feet by 22 feet, and will produce an estimated volume of approximately 25 CY of excavated material. The majority of this excavated material will be placed in the stockpile for impacted Class II soil, however some of the material within this excavation area should be clean AB backfill material which will be placed in the potentially clean overburden stockpile if the AB material can be clearly distinguished from other soil through visual observation.

### **13.3.4. EX4 – West of Pit 2**

Excavation area EX4 is located west of Pit 2 in the northwest portion of the site building. The area proposed for excavation is based on historical verification sample data from the 1985 B&C remedial activities. Verification sample V15 collected between 1.5 to 2.0 feet in depth (presumed to be measured from beneath the 6-inch concrete slab, therefore 2 to 2.5 feet bgs) indicated elevated nickel was left in soil following the 1985 remedial activities (**Figure 9**). The 1985 B&C remedial excavation of this area extended

to approximately 2 feet bgs, therefore, the depth of targeted removal for EX4 will be from approximately 2 to 3.5 feet bgs, and the shallow material extending down to 2 feet bgs will be considered potentially clean over-burden. The proposed excavation area measures approximately 19 feet by 8 feet, therefore the estimated excavation volumes are approximately 9 CY of potentially clean over-burden, and approximately 9 CY of impacted Class II soil.

#### **13.3.5. EX5 – Forge Area/South of Pit 2**

Excavation area EX5 is located south of Pit 2 in the northwest portion of the site building. The area proposed for excavation is based on elevated concentrations of TPHho detected in boring B-7 (**Figure 3**). The proposed excavation measures approximately 12 feet by 12 feet and will extend to approximately 5 feet bgs where TPHho was reported below the CG. Based on the proposed dimensions of this excavation area, an estimated volume of approximately 24 CY of impacted Class II soil will be excavated.

#### **13.3.6. EX6 – West of Forge Area**

Excavation area EX6 is located west of the Forge Area and south of EX5. The area proposed for excavation is based on historical verification sample data from the 1985 B&C remedial activities. Verification sample V14 indicated elevated levels of copper and nickel between 1 to 1.5 feet beneath the 6-inch concrete slab (**Figure 9**), therefore the proposed targeted removal is from 1 to 2.5 feet bgs. The proposed excavation measures approximately 12 feet by 8 feet. The top 6 inches of material beneath the slab in this excavation area is anticipated to be clean AB material which was used as backfill (approximately 2 CY to be excavated) and will be placed in the potentially clean over-burden stockpile. Approximately 5 CY of soil will be excavated between 1 and 2.5 feet bgs and placed in the stockpile for Class I non-RCRA hazardous waste.

#### **13.3.7. 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 B&C 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**), and elevated TPHho detected in samples collected in borings B-8A and B-8C (**Figure 3**). Area 106 was previously excavated by CDMS in 2010 to approximately 5 feet bgs. Available information on the CDMS excavation does not indicate the depths of the confirmation samples, however the sample depth is assumed to be in the smear zone near the groundwater table at approximately 5 feet bgs. The excavation was not backfilled and will be extended to 6 feet bgs to remove residual impacts. Based on the proposed dimensions of this excavation area and the proposed excavation depth of 6 feet bgs, approximately 160 CY will be excavated from this area and placed in the stockpile for impacted Class II soil.

#### **13.3.8. 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.

#### **13.3.9. 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 cobalt 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.

#### **13.3.10. EX10 – Area 107**

Excavation area EX10 is located along the southern section of the site. The area proposed for excavation is based on elevated TPHho detected in 2010 CDMS confirmation samples collected from the north wall, south wall, and west wall of the Area 107 excavation (**Figure 9**). Available information on the CDMS excavation does not indicate the depths of the confirmation samples, however the sample depth is assumed to be in the smear zone near the groundwater table at approximately 5 feet bgs. Shallow soil samples collected from boring B-11 and B-12 in the vicinity of Area 107 indicate shallow soil within the area to be free of significant impacts from TPHho (**Figure 3**), therefore the proposed depth of targeted removal is from 3 to 6 feet bgs. The proposed excavation area measures approximately 12 feet by 17 feet. The soil excavated to approximately 3 feet bgs (approximately 19 CY) will be placed in the potentially clean overburden stockpile. Approximately 23 CY of soil will be excavated between 3 and 6 feet bgs and placed in the stockpile for impacted Class II soil.

#### **13.3.11. EX11 – South of Area 107**

Excavation area EX11 is located in the southern portion of the site, south of Area 107 and west of the former maintenance area. The area proposed for excavation is based on an elevated concentration of lead detected in boring B-12A between 4 to 5 feet bgs (**Figure 4**). Impacts were not detected in shallow soil samples collected in the vicinity of EX11 in borings B-12, B-17 and B-18, therefore the proposed depth of targeted removal is from 3 to 6 feet bgs. The proposed excavation area measures approximately 12 feet by 7 feet. The soil excavated to approximately 3 feet bgs (approximately 8 CY) will be placed in the potentially clean overburden stockpile. Approximately 9 CY of soil will be excavated between 3 and 6 feet bgs and placed in the stockpile for Class I non-RCRA hazardous waste.

#### **13.3.12. EX12 – Southwest of Pit 1**

Excavation area EX12 is located in northern-central area of the building southwest of Pit 1. The area proposed for excavation is based on verification sample data from the

1985 B&C remedial excavation activities. The data indicated elevated levels of copper and nickel between 0.5 to 1.0 feet beneath the 6-inch concrete slab (1.0 to 1.5 feet bgs) in verification samples V7 and V17 (**Figure 9**). The proposed excavation area measures approximately 25 feet by 25 feet with a depth of approximately 2 feet bgs. The previous remedial excavations performed in the areas of verification samples V7 and V17 did not include most of the area within proposed excavation area EX12, therefore clean AB material used to backfill previous remedial excavations will not be segregated for potential re-use from this excavation area. Based on the proposed dimensions of this excavation area, approximately 35 CY will be excavated from this area and placed in the stockpile for impacted Class II soil.

#### **13.3.13. EX13 – Area 6B/Former Small Hammer**

Excavation area EX13 is located in the southern-central portion of the building in the vicinity of Area 6B and the former small hammer. The area proposed for excavation is based on verification sample data from the 1985 B&C remedial activities and confirmation sample data from the 2010 CDMS excavation activities. The data indicated elevated concentrations of lead between 0.5 to 1.0 feet beneath the 6-inch concrete slab (1.0 to 1.5 feet bgs) in verification sample V2 and in the confirmation sample from the south wall of Area 6B (**Figure 9**). The top 6 inches of material beneath the slab in this excavation area is anticipated to be clean AB material which was used as backfill (approximately 3 CY to be excavated) and will be placed in the potentially clean overburden stockpile. Approximately 9 CY of soil will be excavated between 1 and 2.5 feet bgs and placed in the stockpile for Class I non-RCRA hazardous waste.

#### **13.3.14. Potential Excavation for CDMS Borings B1001 and 8**

Two soil samples collected by CDMS during the 2008 investigation activities contained metals concentrations which exceeded CGs however these areas are not currently proposed to be excavated. Lead was detected at 280 mg/kg at 10 feet bgs in B1001 located at the west end of the site, and nickel was detected at 180 mg/kg at 3.5 feet bgs in boring 8 located in the northeastern portion of the site (**Figure 9**). Because these

concentrations of metals are only slightly above the CGs of 200 mg/kg for lead and 150 mg/kg for nickel, it is anticipated that the 95% UCLs to be calculated for remaining concentrations of nickel and lead on-site following the completion of targeted removal activities will be below the CGs with these concentrations remaining in place. Additionally, because the impacts from lead in boring B1001 were detected at 10 feet bgs, and the shallower samples from this boring indicated no significant impacts from lead, the risk of exposure to lead impacted soil in the vicinity of boring B1001 is minimal.

If the 95% UCLs calculated for lead and nickel after the completion of proposed targeted removal activities are above the CGs, targeted removal of soil in the vicinity of borings B1001 and 8 may be performed. The need for potential additional targeted removal would be discussed with stake holders and ACEH to determine whether additional targeted removal is necessary, and if so, what the extent of additional targeted removal would be.

#### **13.4. Dust Control**

During excavation activities, dust suppression will be accomplished by lightly spraying or misting stockpiled soil, truck loading areas on site, and the work areas with water. Misting may also be used on soil placed in the transport trucks. Misting will be performed sufficiently to reduce dust and vapors emissions but in small enough quantities so as to avoid puddling and runoff. In addition, efforts will be made to minimize the soil drop height from the excavator's bucket onto the soil pile or into the transport trucks. Once the soil is loaded into the transport trucks, the soil will be covered to inhibit soil from spilling out of the truck during transport to the disposal facility.

While on the property, vehicles will maintain slow speeds (i.e., less than 5 miles per hour [mph]) for safety purposes and dust control measures. Prior to departure, transport and dump trucks will be cleaned by the remediation contractor of loose debris clinging to the sides and/or wheels using dry brooms or brushes to minimize off-site contaminant mobilization. If conditions warrant, a street sweeper may be retained to sweep the local street route.

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

### **13.5. Decontamination Plan**

For soil excavation and off-hauling activities, a decontamination area will be set up where the existing driveway is located (**Figure 11**). Large equipment and vehicles requiring decontamination include excavation equipment, soil loading equipment, and off-site disposal trucks. Dry decontamination procedures will be used primarily. If water is used, the wash water will be collected in a tank and fluids will be tested and hauled off-site for appropriate disposal or recycling/reuse. Prior to departure, the off-site disposal trucks will move to a decontamination area where loose soil will be removed by the remediation contractor via dry brushing of the truck tires and body. Trucks will be inspected by Ninyo & Moore personnel to ensure proper decontamination has been performed prior to the trucks leaving the site. The loading and decontamination areas will be swept after each vehicle has departed to minimize affected soil contacting the tires of the next vehicle. At the end of each day, each soil hauling and loading vehicle will be swept down in the loading area.

### **13.6. Traffic Plan**

A route has been designated for truck traffic during loading and off-hauling activities within the site (**Figure 11**). Trucks will enter and exit from the single access point at the northeast corner of the property fronting Cleveland Avenue. The trucks will take a left turn exiting the site and continue to Central Avenue where they will have an option of entering Interstate 80 to the east or State Route 580 to the west. Because the entry/exit location is in an area of minimal traffic, traffic control measures at the entry/exit location should not be required.

### **13.7. Potential Removal of Liquid Phase Hydrocarbon (LPH)/Excavation Dewatering**

Groundwater with liquid phase hydrocarbon (LPH) floating on its surface may be encountered in areas where excavation extends below approximately 5 feet bgs. If groundwater with LPH on the surface is encountered, removal of the LPH will be performed. If the quantity of LPH is minimal, it may be skimmed from the groundwater surface using absorbent pads, which would then be placed in 55-gallon steel drums for transportation and disposal at an appropriate facility. If significant quantities of LPH are encountered, the LPH may be pumped out of the excavation into a temporary holding tank then transferred into a vacuum truck for transportation to an appropriate wastewater treatment facility for disposal. The LPH may also be pumped directly into a vacuum truck if the quantity of LPH would not warrant the use of a temporary holding tank. While the excavation dewatering would focus on removal of LPH, significant quantities of groundwater may be removed along with the LPH.

Groundwater samples may be collected if required for waste profiling for excavation dewatering activities. If groundwater sampling is required, one groundwater sample may be collected from the excavation where the most significant impacts are observed, or the groundwater sample may be collected from the temporary holding tank if a holding tank is used. Upon recovery, the groundwater sample will be labeled, placed into protective sleeves, recorded on a chain of custody, and stored in a cooler on ice for delivery to a State-certified laboratory for chemical analyses. The groundwater samples would be analyzed using a 24-hour turn-around-time

### **13.8. Confirmation Sampling**

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. One sidewall sample will be collected for every 25 feet of sidewall length, and one bottom sample will be collected for every 50 foot by 50 foot area of the excavation. Confirmation samples will be collected near the center of the excavation sidewalls and bottoms. The depth of sidewall confirmation



samples will target the depth where the most significant impacts were detected in previously collected samples from within the excavation area. Confirmation sample locations may be adjusted in the field as confirmation samples will be collected from areas where physical signs of impacts are observed to be most significant. **Table 6** presents the proposed confirmation sample locations, depths, and analyses. The proposed confirmation sample locations are also indicated on **Figure 10**. Confirmation sample IDs will consist of the excavation area ID, followed by the confirmation sample location (which includes an S followed by a unique number for each sidewall sample, and a B followed by a unique number for each bottom sample), followed by the depth of the sample in feet bgs (from the original ground surface). For example, sample EX3-S-1-1.75 is a sidewall sample collected from excavation area EX3 at a depth of approximately 1.75 feet below the original ground surface (prior to concrete slab removal).

Confirmation soil samples will be collected using a new disposable plastic trowel and new nitrile gloves for each sample location to minimize the likelihood of cross contamination. If the depth of an excavation is approximately 5 feet bgs or deeper, or the excavation is not considered safe for entry because the sidewalls have not been adequately shored, sloped, or benched, or because high concentrations of organic vapors may be present within the excavation, the bucket of an excavator will be used for collection of confirmation samples. The soil samples would be collected from the center of the soil retrieved by the excavator bucket to minimize the likelihood of cross contamination through contact with the excavator bucket. Samples will be collected in the appropriate sized glass jar supplied by the analytical laboratory. Upon retrieval, the samples will be labeled, placed in individual zip-lock bags, recorded on a chain of custody, and placed in a cooler on ice for delivery to a State-certified laboratory for chemical analyses. Confirmation samples will be analyzed using a 24-hour turn-around-time.

### **13.9. Backfilling Excavations**

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 TPHho 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 TPHho leaching from this material into groundwater. Analytical results for potentially clean overburden soil and the proposed imported fill material source(s) will be forwarded to ACEH for review and approval prior to use as backfill material. Based on the estimated volumes of soil to be excavated, approximately 416 CY of compacted backfill material will be required. If groundwater is present in the excavation, drain rock will be used to backfill the excavation to an elevation of at least 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.

Assuming that groundwater will be encountered at approximately 5 feet bgs and that drain rock will be used to fill excavations which encounter groundwater to a depth of approximately 4 feet bgs, approximately 125 CY of compacted drain rock will be required. Assuming that the potentially clean overburden material will be re-usable as backfill material (estimated at approximately 49 in-place CY), approximately 242 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 160 CY of drain rock and 300 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.

### **13.10. Installation of Groundwater Monitoring Wells and Natural Attenuation**

The removal TPHho impacted source material and LPH from the groundwater surface will impede further migration of constituents of concern to groundwater. As a result, TPHho groundwater concentrations should begin to naturally attenuate within and downgradient of the excavation areas. The natural degradation and attenuation processes will reduce concentrations of the residual TPH pollutants present in groundwater and eventually achieve groundwater cleanup standards. In order to monitor the natural attenuation process, three groundwater monitoring wells will be installed on-site to evaluate the area where the most significant impacts from TPHho in groundwater were detected. Monitoring MW-1 will be located northwest of the Ring Roller Pit, monitoring well MW-2 will be located south of the Ring Roller Pit, and monitoring well MW-3 will be located outside of the building and west (down gradient) of the Ring Roller Pit as shown on **Figure 10**. The borings will be installed to approximately 10 feet bgs using 8-inch diameter hollow stem augers. The wells will be screened to between approximately 3 and 10 feet bgs, and sealed between 3 feet bgs and the ground surface following Alameda County Public Works Agency guidelines. The wells will be completed at the ground surface using 8-inch diameter traffic rated well boxes set in a concrete pad which will extend approximately 1 foot above the surrounding ground surface to allow for future pavement construction in the area. The wells will be developed at least 72 hours after installation and sampled at least 48 hours after development. Once collected, groundwater samples will be analyzed for TPHho using EPA Method 8015M, Title 22 Metals using EPA Method 6010B/7470A, and hexavalent chromium using EPA Method 7196A. Wells will be sampled on a quarterly basis for one year. After one year of quarterly monitoring, the sampling frequency may be reduced based on quarterly monitoring results and discussion with ACEH.

## **14. REPORTING**

A Corrective Action Completion Report will be prepared following the execution of the above-described activities. The report will include a description of the activities performed and any deviations from the CAP. Confirmation sample analytical data will be tabulated and shown on

figures. Manifests and disposal receipts will be included as attachments, as will any required compaction documentation.

Quarterly groundwater monitoring reports will be prepared for each of the groundwater monitoring events. The quarterly reports will discuss changes in groundwater conditions over time relating to natural attenuation, and the fourth quarterly report to be prepared will give a summary of changes between the first and fourth monitoring events and compare groundwater results to the Regional Water Quality Control Board's Low-Threat Closer policy for petroleum hydrocarbons.

## **15. LIMITATIONS AND EXCEPTIONS**

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and

analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

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

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

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

## 16. REFERENCES

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**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- 7	B-15B @6- 7	B-15C @1 5	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	2,500	
<b>TPHs (mg/kg)</b>																					
Hydraulic Oil	ND<50	ND<50	<b>4,300</b>	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	
<b>Metals (mg/kg)</b>																					
Antimony	ND<1.9		ND<2.0		ND<2.0	5.0		ND<2.0								ND<1.9				40	
Arsenic	ND<3.8		7.1		4.8	20		5.9								ND<3.7				40	
Barium	430		170		240	130		1,100								190				1,500	
Beryllium	0.43		ND<0.39		0.43	ND<0.38		0.44								0.71				8	
Cadmium	ND<0.48		ND<0.49		ND<0.50	ND<0.48		ND<0.50								ND<0.47				12.0	
Chromium	30		58		21	200		33								13				NE	
Hexavalent Chromium	NA		NA		NA	NA		NA								NA				8	
Cobalt	4.8		12		6.1	<b>29</b>		5.4								7.6				20*	
Copper	11		94		48	<b>730</b>		42								10				230	
Lead	60	NA	45	NA	170	96	NA	<b>270</b>	NA	NA		NA	NA	NA	NA	50	NA	NA	NA	200**	
Mercury	0.53		0.048		0.13	0.079		9.1								0.022				10.0	
Molybdenum	ND<1.9		7.5		ND<2.0	<b>57</b>		ND<2.0								ND<1.9				40	
Nickel	13		110		23	<b>450</b>		12								19				150	
Selenium	ND<3.8		ND<3.9		ND<4.0	4.1		ND<4.0								ND<3.7				10	
Silver	ND<0.96		ND<0.98		ND<0.99	ND<0.95		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				10	
Vanadium	29		38		22	26		25								19				200	
Zinc	69		63		44	410		490								67				600	
<b>PAHs (mg/kg)</b>																					
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	12
Benzo[a]pyrene			3.8	0.44			0.032			0.012	0.0052	ND<0.005							0.041	ND<0.005	5.3
Benzo[b]fluoranthene			4.5	0.54			0.043			0.014	0.0061	ND<0.005							0.036	ND<0.005	40
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			ND<0.025	0.25	NA	NA	0.014	NA	NA	0.012	ND<0.005	ND<0.005	NA	NA	NA	NA	NA	NA	0.043	ND<0.005	37
Chrysene			5.1	0.78			0.053			0.021	0.0051	ND<0.005							0.064	ND<0.005	23
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	15
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	15
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 20 mg/kg will be used for cobalt based on statistical analysis of naturally occurring background concentrations which exceed the ESL of 1.6 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 were analyzed by EPA Method 8015M.  
 Metals were analyzed by EPA Methods 6010B.  
 Polyaromatic Hydrocarbons (PAHs) were analyzed by EPA 8270.  
 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 7	B-20B @1-2 2	B-20B @4-5 5	B-20B @6-7 7	B-21A @4-5 5	B-21A @6-7 7	B-22A @4-5 5	B-22A @6-7 7	B-22B @4-5 5	B-23A @4-5 5	B-23A @6-7 7	B-24A @4-5 5	B-24A @6-7 7	B-24B @4-5 5	B-24B @6-7 7	B-25A @1-2 2	UG-1 @0.5-1 1	UG-2 @0.5-1 1	Cleanup Goals/ESLs mg/kg	STLC mg/L
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		
<b>TPHs (mg/kg)</b>																					
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	
<b>Metals (mg/kg)</b>																					
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	40	
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	20*	
Copper			NA					19					74				490	NA	NA	230	
Lead			NA					67					260				240	NA	NA	200**	
Soluble Lead (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2	NA	NA	NE	5.0
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	20
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	
<b>PAHs (mg/kg)</b>																					
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						12	
Benzo[a]pyrene	0.015	ND<0.0049						0.033	0.041				ND<0.0049	0.006						5.3	
Benzo[b]fluoranthene	0.016	ND<0.0049						0.051	0.051				0.013	0.012						40	
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						0.020	ND<0.025				ND<0.0049	ND<0.0049					NA	37	
Chrysene	0.019	ND<0.0049	NA	NA	NA	NA	NA	0.065	0.081	NA	NA	NA	0.020	0.016					NA	23	
Dibenz[a,h]anthracene	ND<0.005	ND<0.0049						0.011	ND<0.025				ND<0.0049	ND<0.0049						15	
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						15	
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 20 mg/kg will be used for cobalt based on statistical analysis of naturally occurring background concentrations which exceed the ESL of 1.6 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 were analyzed by EPA Method 8015M.
- Metals were analyzed by EPA Methods 6010B.
- Polyaromatic Hydrocarbons (PAHs) were analyzed by EPA 8270.
- 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	
<b>TPHs (mg/kg)</b>											
Hydraulic Oil	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,500
<b>Metals (mg/kg)</b>											
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
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	20*
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	<b>240</b>	84	47	120	<b>2,500</b>	<b>440</b>	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
<b>PAHs (mg/kg)</b>											
Acenaphthene											19
Acenaphthylene											13
Anthracene											2.8
Benzo[a]anthracene											12
Benzo[a]pyrene											5.3
Benzo[b]fluoranthene											40
Benzo[g,h,i]perylene											27
Benzo[k]fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37
Chrysene											23
Dibenz(a,h)anthracene											15
Fluoranthene											40
Fluorene											8.9
Indeno[1,2,3-cd]pyrene											15
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 20 mg/kg will be used for cobalt based on statistical analysis of naturally occurring background concentrations which exceed the ESL of 1.6 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 were analyzed by EPA Method 8015M.

Metals were analyzed by EPA Methods 6010B.

Polyaromatic Hydrocarbons (PAHs) were analyzed by EPA 8270.

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				
<b>TPHs (µg/L)</b>																						
Hydraulic Oil	NA	<b>2,200</b>	440 J	<b>1,100</b>	45 J	69 J	NA	180 J	<670	<620	140 J	NA	<620	100 J	NA	NA	150 J	140 J	640			
<b>Metals (µg/L)</b>																						
Antimony	<10	<10	<10	<10	NA	<10	<10	<10	NA	NA	<10	<b>13</b>	NA	<10	<10	<10	<10	<10	30			
Arsenic	<10	<10	29	15		<10	<10	<10			<10	11		<10	<10	22	<10	<10	<10	<10	<10	36
Barium	160	630	<b>3,800</b>	<b>1,100</b>		250	320	250			210	300		120	540	330	130	100	1,000			
Beryllium	<2	<2	<b>11</b>	<b>2.2</b>		<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	<2	0.25		
Chromium	<10	<10	<b>75</b>	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	0.57		<0.5	<0.5	NA	4.9	8.5	11			
Cobalt	<b>13</b>	2	<b>110</b>	<b>14</b>		<2	2.7	<b>3.3</b>			2.4	<b>51</b>		<2	<2	<b>14</b>	<b>5.3</b>	<b>58</b>	3			
Copper	<20	<20	<b>200</b>	<b>69</b>		<20	<20	<20			<b>140</b>	<20		<b>26</b>	<20	<20	<20	<20	3.1			
Lead	<5	<5	<b>970</b>	<b>660</b>		<5	<b>8.2</b>	<b>46</b>			<b>400</b>	<b>180</b>		<b>5.6</b>	<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	<b>870</b>	<b>390</b>	120	20	62	170	40	240							
Nickel	<b>20</b>	<b>18</b>	<b>180</b>	<b>25</b>	<10	<10	<b>10</b>	<b>41</b>	<b>33</b>	<10	<b>11</b>	<b>48</b>	<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	<b>18</b>	<b>340</b>	<b>68</b>	<10	<b>15</b>	10	<10	<10	11	<10	<10	<10	<10	19							
Zinc	50	<20	<b>1,800</b>	<b>390</b>	<b>99</b>	59	42	<b>200</b>	23	<20	<20	<b>200</b>	<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 3**  
**TOTAL DISSOLVED SOLIDS AND SALINITY IN GROUNDWATER**

<b>SAMPLE ID</b>	<b>Total Dissolved Solids (mg/L)</b>	<b>SALINITY (mg/L)</b>
B15A	NA	NA
B18C	2,400	2,100
B19A	2,200	370
B110A	7,600	400
B114A	890	760
B115B	690	530
B115C	NA	NA
B117A	1,200	770
B120A	3,000	3,100
B121A	NA	NA
B122A	590	450
B122B	NA	NA
B123A	NA	NA
B124A	810	740
B124B	NA	NA
B125A	NA	NA
UG1	560	470
UG2	570	480

Notes:

TDS = Total Dissolved Solids

TDS was analyzed using EPA Method SM2540C.

Salinity was analyzed using EAP Method SM 2520B.

TDS is measured in milligrams per liter (mg/L).

Salinity was measured as NaCL in mg/L.

NA = Not Analyzed

**TABLE 4  
EVALUATION OF REMEDIAL ALTERNATIVES USING NATIONAL CONTINGENCY PLAN CRITERIA**

	<b>Targeted Removal</b>	<b>In-place treatment</b>	<b>No Action</b>	<b>Attenuation (Groundwater Only)</b>
<b>Threshold Criteria</b>				
Overall protection of human health and the environment.	High	High	Low	Moderate
Compliance with applicable or relevant and appropriate requirements (ARARs).	High	High	Low	Moderate
<b>Balancing Criteria</b>				
Long-term effectiveness and permanence.	High	High	Low	High
Reduction of toxicity, mobility, or volume through treatment.	High	High	Low	Low
Short-term effectiveness.	High	Moderate	Low	Low
Implementability.	High	High	High	High
Cost.	Low-moderate	Moderate-high	Low	Low
<b>Modifying Criteria</b>				
ACEH (support agency) acceptance.	High	High	Low	High
Community acceptance.	High	High	Low	High

Notes:

ACEH = Alameda County Environmental Health

**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 Hazardous)
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 Hazardous)
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 Hazardous)
B-8A, B-8C	EX7	45	15	0 to 6	0.5	5.5	137.5	206.3	Class II
106, V8, V9	EX7	40	15	5 to 6	NA	1	22.2	33.3	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 Hazardous)
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 Hazardous)
<b>Totals</b>							<b>416</b>	<b>624</b>	
							<b>Total Class II</b>	<b>321</b>	<b>482</b>
							<b>Total Class I non-RCRA Hazardous</b>	<b>46</b>	<b>69</b>
							<b>Total Clean Overburden</b>	<b>49</b>	<b>74</b>

**TABLE 6 - CONFIRMATION SAMPLING PLAN**

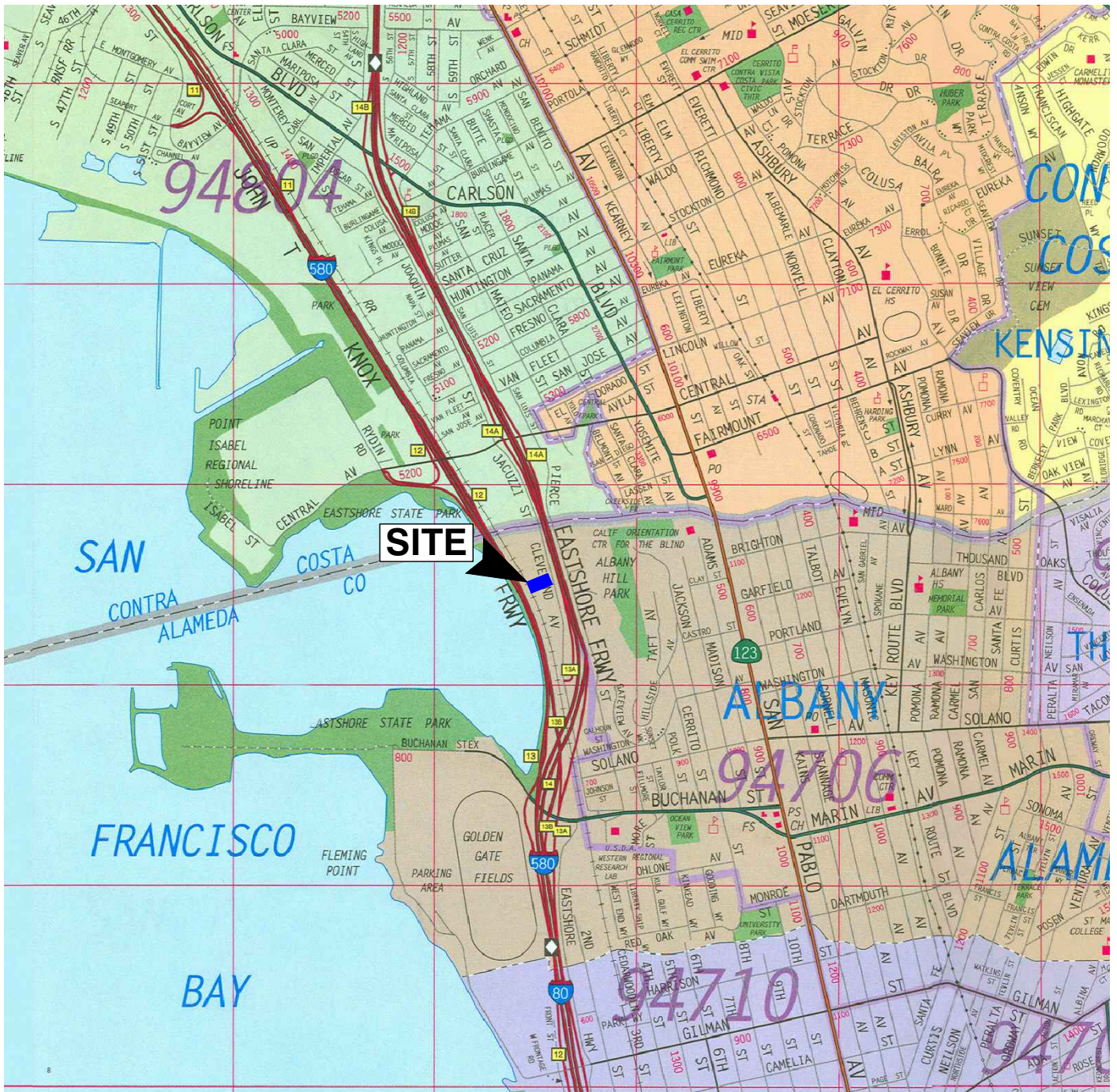
EXCAVATION AREA	CONFIRMATION SAMPLE LOCATION	SAMPLE DEPTH* (FEET BGS)	ANALYSIS	
			TPH AS HYDRAULIC OIL	METALS
<b>EX1 (Northwest Corner of the site)</b>	B-1	4	NA	Copper, Nickel, Lead and Molybdenum
<b>EX2 (Northwest Corner of the site)</b>	S-1 through S-3	0.5 & 4.5	NA	Nickel and Zinc at 0.5'; Nickel,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

Notes:

BGS - Below Ground Surface

\* Indicates sample depths are measured from the top of the concrete slab, and sidewall sample depths are based on the depth where the most significant impacts were previously detected within the excavation area.

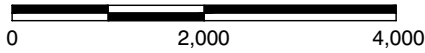
NA-Not Analyzed



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



SCALE IN FEET



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

**Ninyo & Moore**

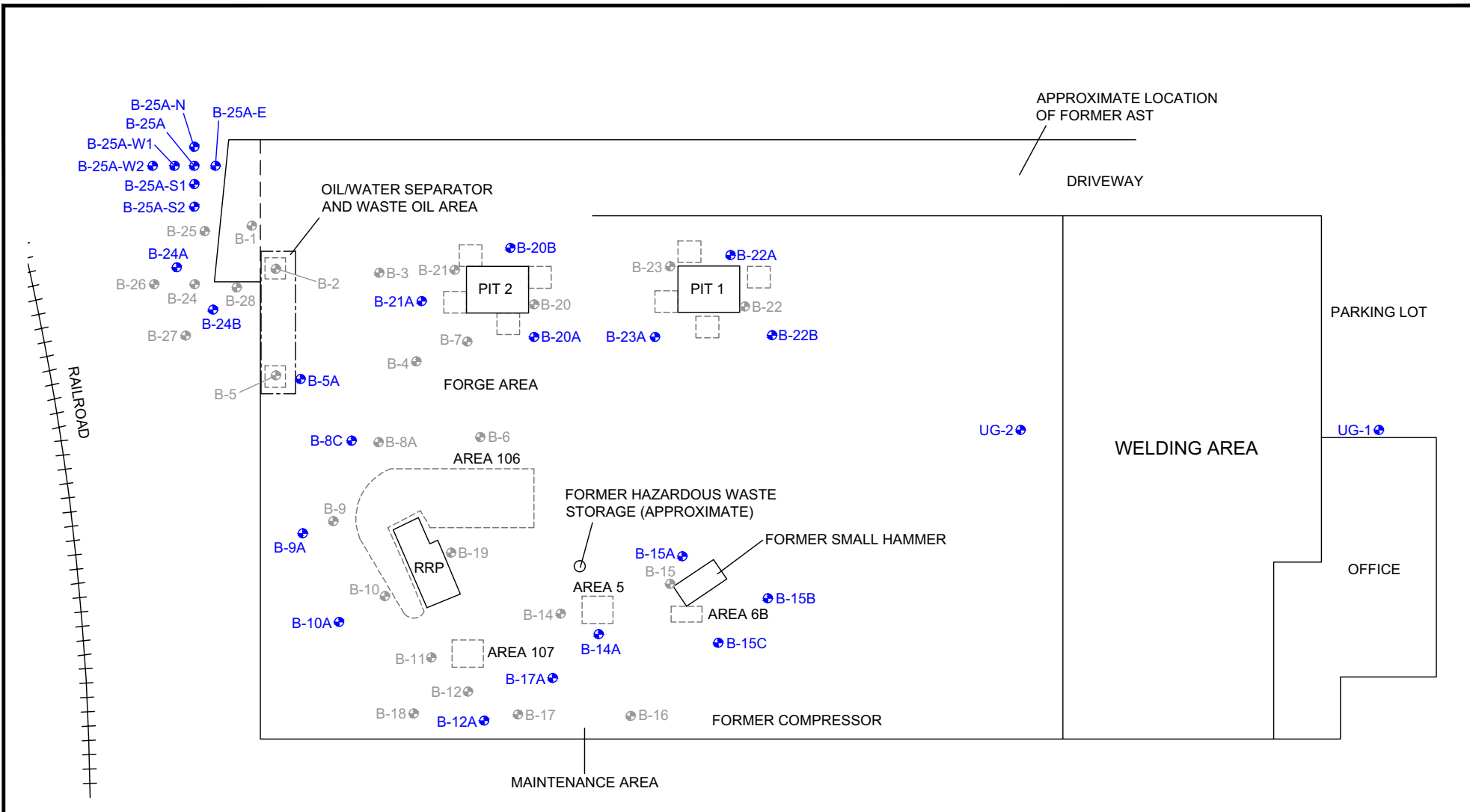
**SITE LOCATION**

FIGURE

PROJECT NO.	DATE
401823001	5/13

WESTERN FORGE & FLANGE  
540 CLEVELAND AVENUE  
ALBANY, CALIFORNIA

**1**

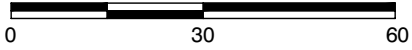


LEGEND	
B-28	APRIL 2012 REMEDIAL INVESTIGATION BORING LOCATION
B-25A	DECEMBER 2012 APPROXIMATE BORING LOCATION
[Dashed Box]	EXISTING EXCAVATIONS
RRP	RING ROLLER PIT

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



SCALE IN FEET

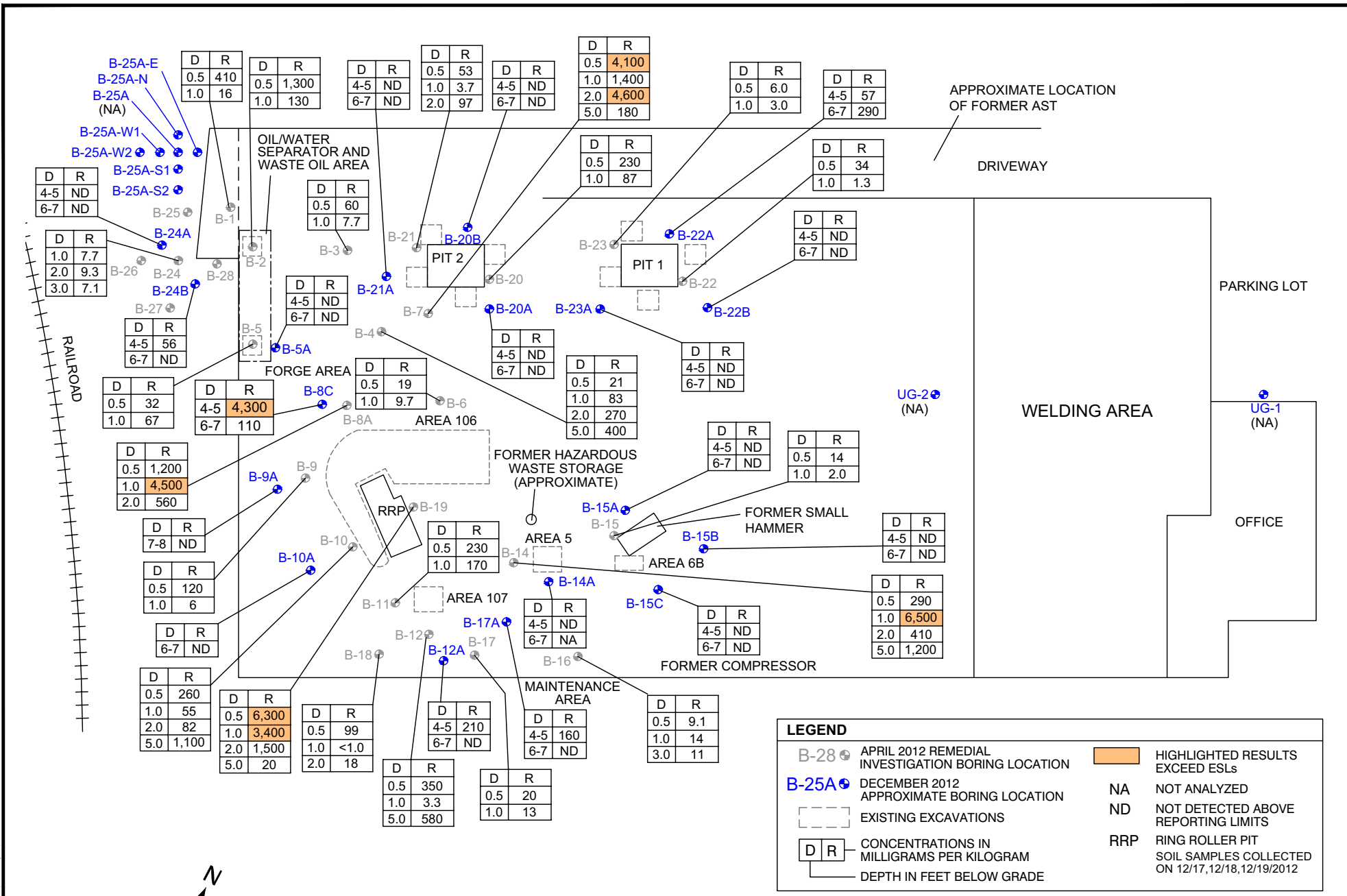


NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

<b>Ninyo &amp; Moore</b>		<b>SOIL BORING LOCATIONS</b>	<b>FIGURE</b>  <b>2</b>
PROJECT NO.	DATE	WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	
401823001	5/13		

401823001-SEIL.dwg, May 13, 2013, 5:35pm, a.balane

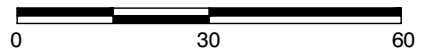




REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011.

		<b>TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL IN SOIL</b>	FIGURE <b>3</b>
PROJECT NO.	DATE		
401823001	5/13		

101025001-EPHCD.dwg, May 14, 2013, 12:51 pm, abalans



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

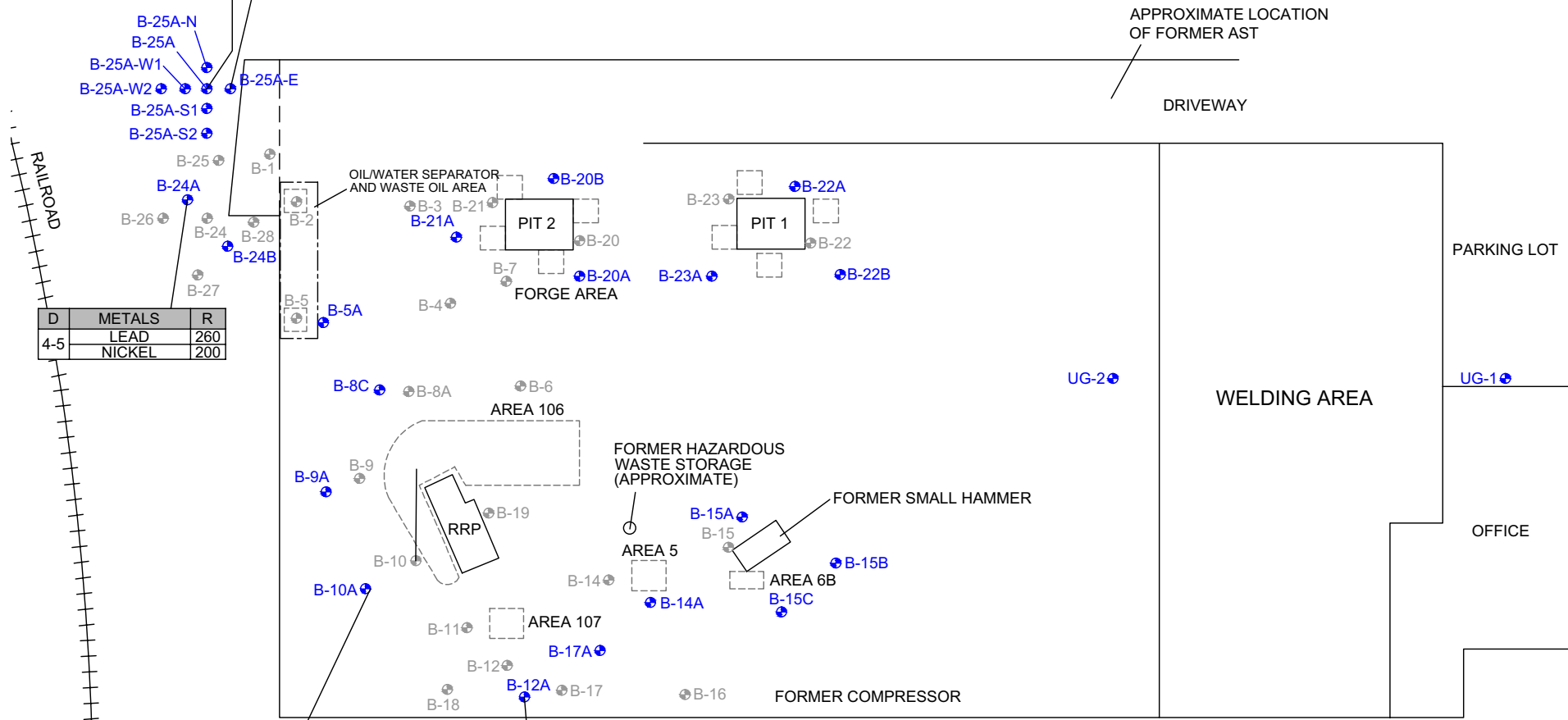
D	METALS	R
1-2	COPPER	490
	MOLYBDENUM	82
	NICKEL	700
3.0	LEAD	240
	NICKEL	240

D	METALS	R
1.0	NICKEL	2,500
2.0	NICKEL	440

D	METALS	R
4-5	LEAD	260
	NICKEL	200

D	METALS	R
0.5-1	COPPER	730
	MOLYBDENUM	57
	NICKEL	450
	COBALT	29

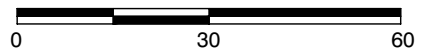
D	METALS	R
4-5	LEAD	270



**LEGEND**

- B-28 ● APRIL 2012 REMEDIAL INVESTIGATION BORING LOCATION
- B-25A ● DECEMBER 2012 APPROXIMATE BORING LOCATION
- EXISTING EXCAVATIONS
- RRP RING ROLLER PIT
- |   |   |
|---|---|
| D   | R |
| CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM |   |
| DEPTH IN FEET BELOW GRADE                 |   |
- |  |  |
|--|--|
| SOIL SAMPLES COLLECTED ON 12/17, 12/18, 12/19/2012 |  |
|--|--|

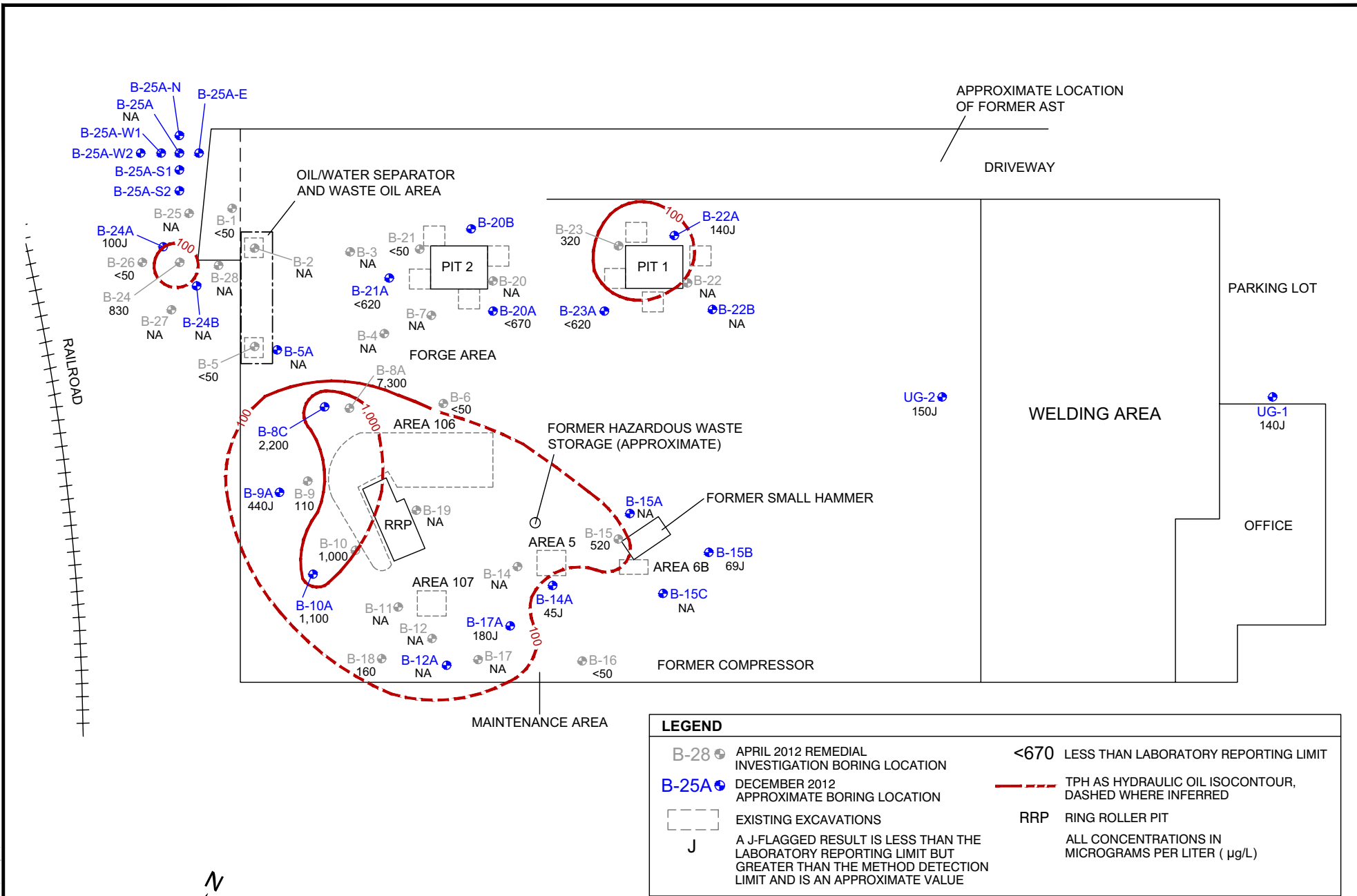
REFERENCE: MASTER LAYOUT FIGURE, CDMS, 1998, REV. 2008, NINYO & MOORE MEASUREMENTS OCTOBER 2011.



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

<b>Ninyo &amp; Moore</b>		<b>METALS IN SOIL EXCEEDING CLEANUP GOALS IN NINYO &amp; MOORE BORINGS</b>	WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	FIGURE
PROJECT NO. 401823001	DATE 5/13			<b>4</b>

401823001-MS.dwg, May 14, 2013, 12:52pm, abillane



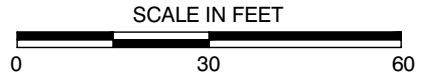
LEGEND	
B-28	APRIL 2012 REMEDIAL INVESTIGATION BORING LOCATION
B-25A	DECEMBER 2012 APPROXIMATE BORING LOCATION
[Dashed Box]	EXISTING EXCAVATIONS
J	A J-FLAGGED RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT BUT GREATER THAN THE METHOD DETECTION LIMIT AND IS AN APPROXIMATE VALUE
<670	LESS THAN LABORATORY REPORTING LIMIT
[Red Dashed Line]	TPH AS HYDRAULIC OIL ISOCONTOUR, DASHED WHERE INFERRED
RRP	RING ROLLER PIT
	ALL CONCENTRATIONS IN MICROGRAMS PER LITER ( µg/L)

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



**TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL IN SHALLOW GROUNDWATER**

FIGURE



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

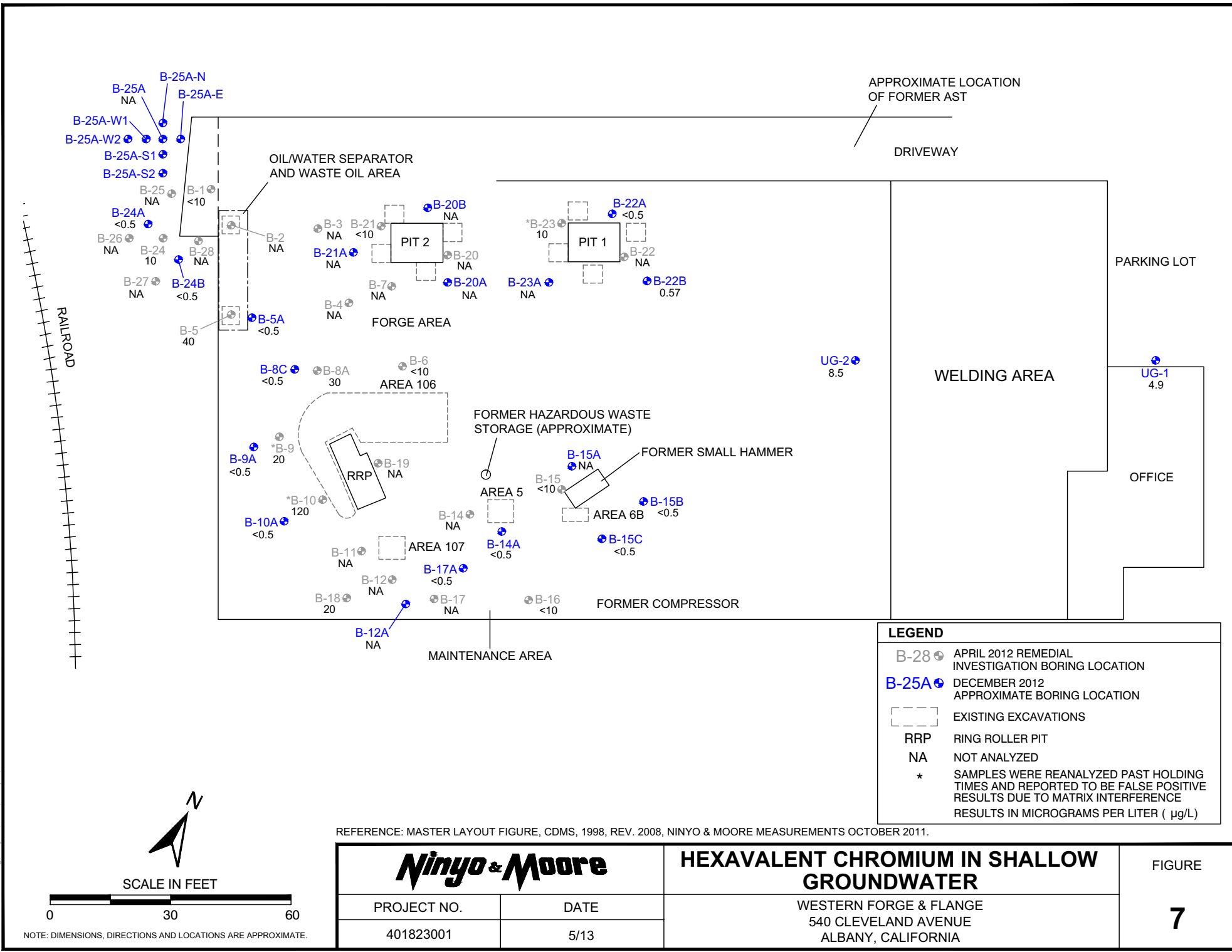
PROJECT NO.	DATE
401823001	5/13

WESTERN FORGE & FLANGE  
540 CLEVELAND AVENUE  
ALBANY, CALIFORNIA

**5**

101823001-TPH-HO.dwg, May 13, 2013, 8:40pm, abalans



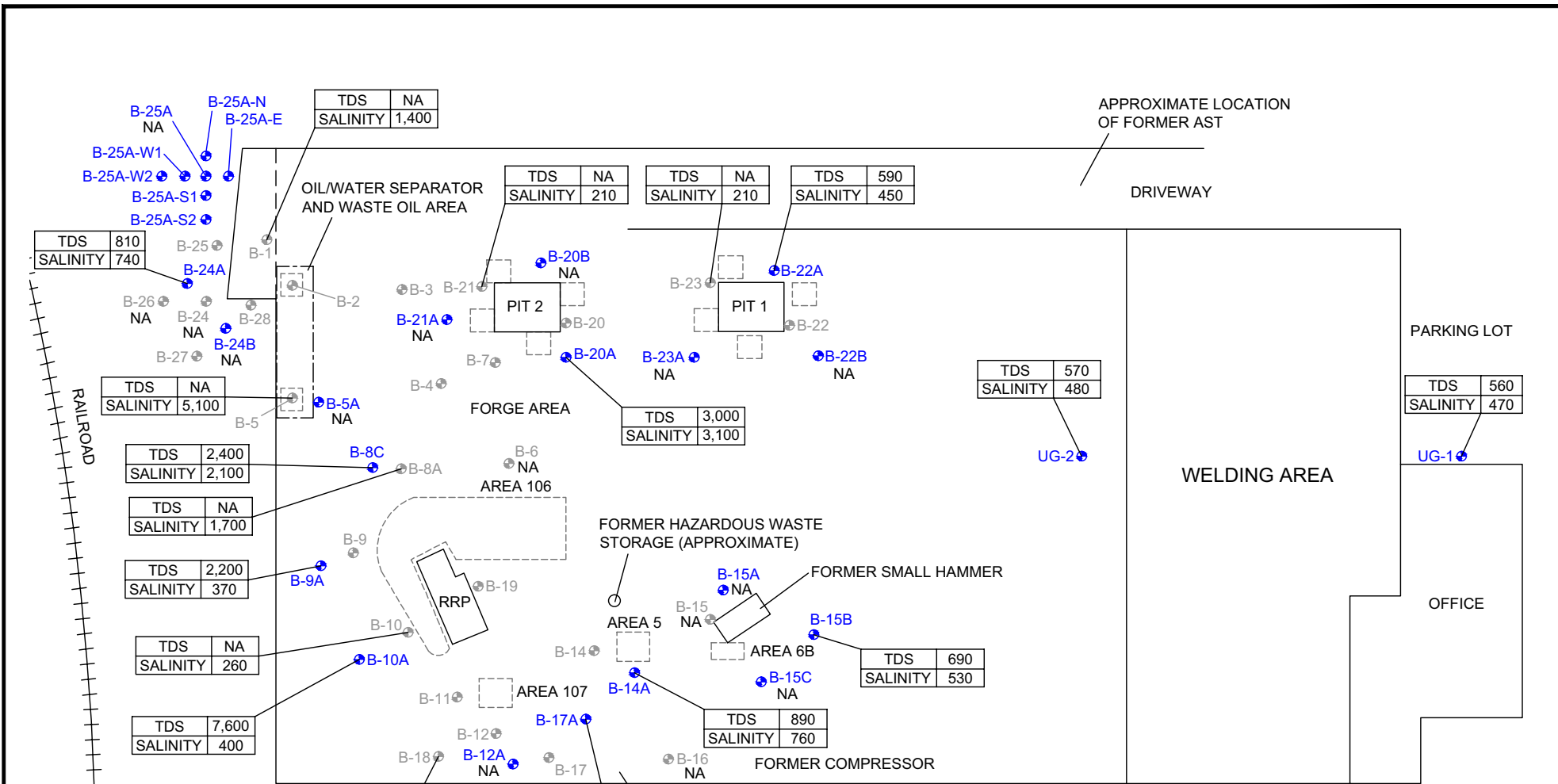


<b>Ninyo &amp; Moore</b>	
PROJECT NO.	DATE
401823001	5/13

<b>HEXAVALENT CHROMIUM IN SHALLOW GROUNDWATER</b>
WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA

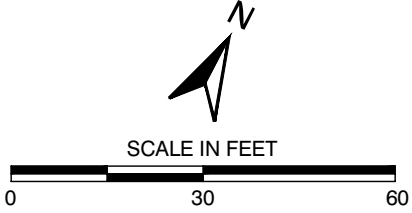
FIGURE
<b>7</b>

401823001-HFC-GW.dwg, May 13, 2013, 5:52 pm, sblstiane



LEGEND	
B-28	APRIL 2012 REMEDIAL INVESTIGATION BORING LOCATION
B-25A	DECEMBER 2012 APPROXIMATE BORING LOCATION
[Dashed Box]	EXISTING EXCAVATIONS
RRP	RING ROLLER PIT
TDS	MEASURED IN mg/L
SALINITY	MEASURED IN NaCl IN mg/L
NA	NOT ANALYZED

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



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

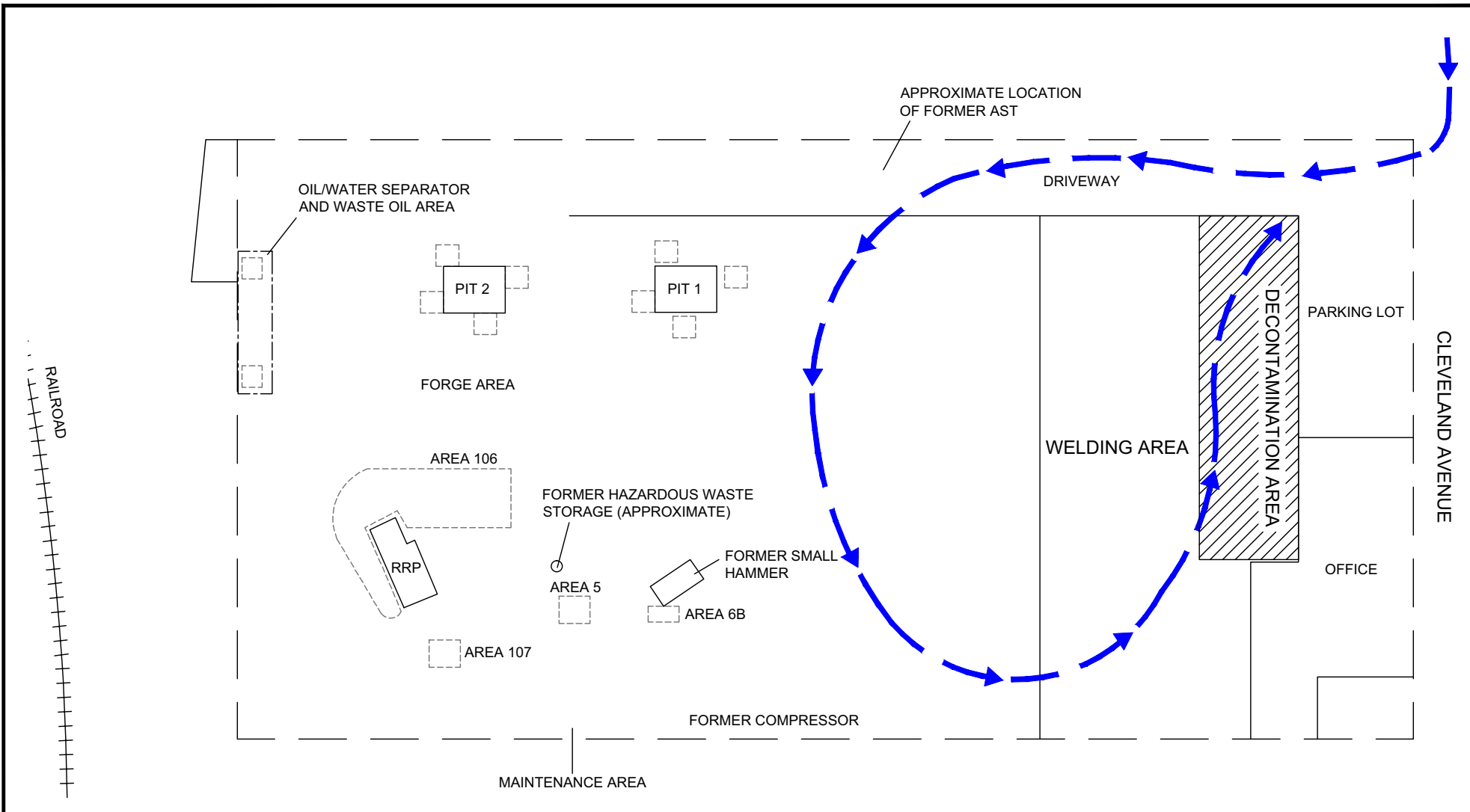
		<b>TOTAL DISSOLVED SOLIDS AND SALINITY IN SHALLOW GROUNDWATER</b>		FIGURE <b>8</b>
PROJECT NO.	DATE			
401823001	5/13			

401823001-TDS-S-GW.dwg, May 13, 2013, 5:54pm, abblaine

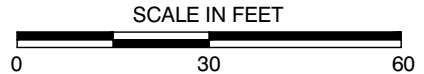








LEGEND	
	EXISTING EXCAVATIONS
	RING ROLLER PIT
	TRUCK ROUTE



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

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

		<b>DECONTAMINATION AREA AND TRAFFIC PLAN</b> WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA		FIGURE
				<b>11</b>
PROJECT NO.	DATE			
401823001	5/13			

401823001-TRP.dwg, May 13, 2013, 9:56pm, abalans

**APPENDIX A**

**ALAMEDA COUNTY ENVIRONMENTAL HEALTH CONDITIONAL APPROVAL**



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

November 28, 2012

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

Subject: **Conditional Approval of Data Gap Work Plan**; Spills, Leaks, Investigations and Cleanup (SLIC) 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 for the above-referenced site including the *Site Conceptual Model and Data Gap Work Plan*, dated October 11, 2012. The document was submitted on your behalf by Ninyo & Moore, Inc. Thank you for submitting the report.

Based on ACEH staff review of the referenced documents and of the case file we generally concur with the recently proposed scope of work, provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. While the comments below request a number of additional soil bores, submittal of a revised Work Plan is not requested, unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the technical reports requested below. Please provide 72-hour advance written notification to this office (e-mail preferred to: [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org)) prior to the start of field activities.

#### **TECHNICAL COMMENTS**

1. **Work Plan Modifications** – The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking; however, ACEH requests several modifications to the approach. Please submit a report by the date specified below.
  - a. **Soil Sample Selection Protocols** – The work plan proposes to collect and retain for laboratory analysis selected soil samples between the depths of 4 and 7 feet below grade surface (bgs). To clarify and prevent miscommunication, ACEH requests these samples be analyzed at signs of contamination (staining, odors, PID responses, etc.), and at the capillary fringe. However, ACEH additionally requests the collection and analysis of soil samples to determine the vertical extent of contaminated soil beneath the site.
  - b. **Soil and Groundwater Analytical Suite** – The non-hydrocarbon (metals) analytical suite mentioned in the work plan primarily focuses on hexavalent chromium, but does have a subordinate focus on arsenic in the analytical suite. ACEH notes that while the description for sample selection in the laboratory analysis section of the report is fairly limited, the analytical suite appears to be reasonably compressive. Consequently, to prevent miscommunications, ACEH requests that sufficient attention be given to other metal contaminants, principally due to the presence of multiple metals in groundwater at concentrations above ESLs in a number of soil bores (cobalt, copper, nickel, vanadium, zinc in bores B-5, B-6, B-9, B-10, B-15, B-16, B-18, B-23, B-24, and perhaps others). Sufficient attention to detail is required to help define the extent of these contaminants at the site and to minimize future mobilizations.

- c. **Downgradient Soil Bores** – ACEH is somewhat concerned that the three proposed downgradient soil bores may be premature at this time. While the potential hexavalent chromium contamination is currently undefined in several directions (from B-5 and B-24 for instance) stepping out 125 feet downgradient onto the I-580 right-of-way may induce other non-anticipated contamination problems, or delay the field investigation due to permitting issues. While ACEH does not ultimately object with the three bores, ACEH recommends further onsite delineation opportunities such as provided by proposed soil bore B-24A, B-24B, and B-25A. Conversely, ACEH does not object to the collection of general chemistry analytical data, such as salinity and TDS at these three downgradient locations.

### 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 following specified file naming convention and schedule:

- **February 1, 2013** – Site Investigation Report  
File to be named: RO3009\_SWI\_R\_yyyy-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.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>.

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

Sincerely,



Digitally signed by Mark E. Detterman  
DN: cn=Mark E. Detterman, o, ou,  
email, c=US  
Date: 2012.11.28 16:13:45 -08'00'

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

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

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

Donna Drogos, (sent via electronic mail to [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Mark Detterman (sent via electronic mail to [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org))  
Electronic File, GeoTracker

## 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/](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.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)</b>	<b>REVISION DATE:</b> July 25, 2012
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> 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 [deh.loptoxic@acgov.org](mailto:deh.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 <ftp://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 [deh.loptoxic@acgov.org](mailto:deh.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.

**APPENDIX B**

**ALAMEDA COUNTY PUBLIC WORKS AGENCY DRILLING PERMIT**

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/30/2012 By jamesy

Permit Numbers: W2012-0832  
Permits Valid from 12/17/2012 to 12/18/2012

Application Id: 1354301364170  
Site Location: Western Forge & Flange  
540 Cleveland Avenue  
Albany, CA 94706

City of Project Site: Albany

Project Start Date: 12/17/2012  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Completion Date: 12/18/2012

Applicant: Ninyo & Moore - Melissa Terry  
1956 Webster Street, Suite 400, Oakland, CA 94612  
Property Owner: Walter Pierce  
687 County Road 2201, Cleveland, TX 77327  
Client: \*\* same as Property Owner \*\*  
Contact: Melissa Terry

Phone: 510-455-1087

Phone: --

Phone: 510-343-3000 x5230  
Cell: 510-455-1087

Receipt Number: WR2012-0387 Total Due: \$265.00  
Payer Name : Avram Ninyo Total Amount Paid: \$265.00  
Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 21 Boreholes  
Driller: PeneCore Drilling - Lic #: 906899 - Method: DP

Work Total: \$265.00

## Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2012-0832	11/30/2012	03/17/2013	21	4.00 in.	10.00 ft

## Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters



## **Alameda County Public Works Agency - Water Resources Well Permit**

generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

---

**APPENDIX C**  
**SOIL BORING LOGS**

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-18-12</u> BORING NO. <u>UG-1</u>	
	Bulk	Driven							GROUND ELEVATION _____	SHEET <u>1</u> OF <u>1</u>
									METHOD OF DRILLING <u>GEOPROBE</u>	
									DRIVE WEIGHT <u>N/A</u> DROP <u>N/A</u>	
									SAMPLED BY <u>MAT</u> LOGGED BY <u>MAT</u> REVIEWED BY _____	
									DESCRIPTION/INTERPRETATION	
0									<p>CONCRETE: Approximately 4 inches.</p> <p>FILL: Gravel approximately to 6 inches.</p> <p>ALLUVIUM: Brown, wet, sandy silt.</p> <p>Gray, wet, sandy silt.</p>	
5									<p>Total Depth = 5 feet bgs.</p> <p>Groundwater encountered at 3.5 feet bgs.</p> <p>Backfilled with grout same day.</p>	
10										
15										
20										



**BORING LOG**

WESTERN FORGE & FLANGE

PROJECT NO.  
401823001

DATE  
1/13

FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	UG-2
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									<p>CONCRETE: Approximately 4 inches.</p> <p>FILL: Gravel approximately to 6 inches.</p> <p>ALLUVIUM: Brown, wet, sandy silt.</p>	
									<p>Gray, wet, sandy silt.</p>	
5									<p>Total Depth = 5 feet bgs.</p> <p>Groundwater encountered at 3.5 feet bgs.</p> <p>Backfilled with grout same day.</p>	
10										
15										
20										



**BORING LOG**

WESTERN FORGE & FLANGE

PROJECT NO.  
401823001

DATE  
1/13

FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	B-5A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0						0.0			CONCRETE: Approximately 6 inches.	
									ALLUVIUM: Brown, clayey sandy silt.	
							ML		Dark gray, moist, sandy silt, staining, slight petroleum odor.	
									Grayish olive, moist, sandy silt, staining, slight petroleum odor.	
5						0.0			B-5A @4-5	
						0.0			B-5A @6-7	
						0.0			Total Depth = 7 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
10										
15										
20										



**BORING LOG**

WESTERN FORGE & FLANGE

PROJECT NO.  
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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-17-12	B-8B
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A DROP N/A
									SAMPLED BY	MAT LOGGED BY MAT REVIEWED BY
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 8 inches.	
									FILL: Pea gravel approximately to 3 feet bgs.	
									Concrete at approximately 3 feet bgs. Total Depth = 3 feet bgs. Backfilled with grout same day. Moved over due to pea gravel, to B-8C.	
5										
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-18-12</u> BORING NO. <u>B-8C</u>	
	Bulk Driven								GROUND ELEVATION _____ SHEET <u>1</u> OF <u>1</u>	METHOD OF DRILLING <u>GEOPROBE</u>
0									CONCRETE: Approximately 6 inches.	
						0.0			FILL: Gravel to approximately 1.5 feet bgs.	
						0.0		ML	ALLUVIUM: Brown, moist, sandy silt.	
						0.0				
5						0.0			B-8C @4-5	
						0.0			B-8C @6-7	
						0.0			Dark gray, moist, clayey sandy silt, slight staining.	
						0.0			Gray, moist, sandy silt.	
10						0.0			B-8C @9-10	
									Total Depth = 10 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-17-12</u> BORING NO. <u>B-9A</u>		
	Bulk	Driven							GROUND ELEVATION _____	SHEET <u>1</u> OF <u>1</u>	METHOD OF DRILLING <u>GEOPROBE</u>
									DRIVE WEIGHT <u>N/A</u>	DROP <u>N/A</u>	SAMPLED BY <u>MAT</u> LOGGED BY <u>MAT</u> REVIEWED BY _____
									DESCRIPTION/INTERPRETATION		
0									CONCRETE: Approximately 6 inches.		
						0.0		SM	ALLUVIUM: Brown, wet, silty sand.		
									No recovery approximately 3 - 7 feet bgs.		
5											
						0.0		ML	Dark gray, wet, sandy silt, staining.		
						0.0					
10						0.0			Total Depth = 10 feet bgs.		
									Groundwater encountered at 4 feet bgs.		
									Backfilled with grout same day.		
15											
20											



**BORING LOG**

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FIGURE



DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	B-10A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 6 inches.	
						0.0		ML	ALLUVIUM: Brown, moist, sandy silt.	
									No recovery approximately 4 - 5 feet bgs.	
5									Dark gray, moist, sandy silt, slight staining.	
						0.0				
									Total Depth = 7 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-17-12	B-12A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0						0.0			CONCRETE: Approximately 8 inches.	
								ML	ALLUVIUM: Brown, wet, sandy silt.	
						0.0				
5						0.0				
						0.0			Gray, moist, sandy silt.	
						0.0				
						0.0			Total Depth = 7 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	B-14A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 8 inches.	
								ML	ALLUVIUM: Brown, wet, sandy silt.	
						0.0				
						0.0				
5						0.0			Dark gray, wet, sandy silt, staining, slight petroleum odor.	
						0.0			Light olive gray, moist, sandy silt.	
						0.0				
						0.0			Total Depth = 7 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	B-15A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A DROP N/A
									SAMPLED BY	MAT LOGGED BY MAT REVIEWED BY
									DESCRIPTION/INTERPRETATION	
0						0.0			CONCRETE: Approximately 8 inches.	
								ML	ALLUVIUM: Dark gray, moist sandy silt, staining with petroleum odor.	
						0.0				
5						0.0				Light gray, moist, sandy silt.
						0.0				
						0.0				
						0.0				
						0.0				
10									Total Depth = 7 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
20										



**BORING LOG**

WESTERN FORGE & FLANGE

PROJECT NO. 401823001	DATE 1/13	FIGURE
--------------------------	--------------	--------

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	B-15B
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0						0.0			CONCRETE: Approximately 8 inches.	
								ML	ALLUVIUM: Dark gray, moist sandy silt, staining with petroleum odor.	
									Light gray, moist, sandy silt.	
5						0.0			B-15B @4-5	
						0.0			B-15B @6-7	
						0.0			Total Depth = 7 feet bgs.	
									Groundwater encountered at 3.5 feet bgs.	
									Backfilled with grout same day.	
10										
15										
20										



**BORING LOG**

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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-18-12</u> BORING NO. <u>B-15C</u>		
	Bulk	Driven							GROUND ELEVATION _____ SHEET <u>1</u> OF <u>1</u>		METHOD OF DRILLING <u>GEOPROBE</u>
0									CONCRETE: Approximately 8 inches.		
			B-15C	@1		0.0		ML	ALLUVIUM: Brown, wet, sandy silt.		
			B-15C	@4-5		0.0					
5			B-15C	@6-7		0.0			Light gray, moist, sandy silt.		
						0.0			Total Depth = 7 feet bgs.  Groundwater encountered at 3.5 feet bgs.  Backfilled with grout same day.		
10											
15											
20											



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-18-12	B-17A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0						0.0			CONCRETE: Approximately 8 inches.	
									ALLUVIUM: Brown, moist, clayey sandy silt, little gravel.	
									Dark gray, wet, sandy silt, staining.	
						0.0		ML	Gray, clayey sandy silt.	
5						0.0			Total Depth = 7 feet bgs.	
						0.0			Groundwater encountered at 3.5 feet bgs.	
						0.0			Backfilled with grout same day.	
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-17-12	B-20A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 10 inches.	
								ML	<u>ALLUVIUM:</u> Brown, moist, clayey sandy silt.  Brown, wet, sandy silt.	
5						0.0			B-20A @4-5	
						0.0				
						0.0			B-20A @6-7	
						0.0				
10									Total Depth = 7 feet bgs.	
									Groundwater encountered at 4.5 feet bgs.	
									Backfilled with grout same day.	
15										
20										



**BORING LOG**

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FIGURE



DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12-17-12 BORING NO. B-20B	
	Bulk	Driven							GROUND ELEVATION _____ SHEET 1 OF 1	
									METHOD OF DRILLING GEOPROBE	
									DRIVE WEIGHT _____ N/A DROP _____ N/A	
									SAMPLED BY MAT LOGGED BY MAT REVIEWED BY _____	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 10 inches.	
			B-20B @1-2			0.0		ML	<u>ALLUVIUM:</u> Brown, moist, clayey sandy silt.  Brown, wet, sandy silt.	
			B-20B @4-5			0.0				
5						0.0				
			B-20B @6-7			0.0				
						0.0			Total Depth = 7 feet bgs.  Groundwater encountered at 4.5 feet bgs.  Backfilled with grout same day.	
10										
15										
20										



### BORING LOG

WESTERN FORGE & FLANGE

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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-17-12	B-21A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 8 inches.	
						0.0			ALLUVIUM: Brown, moist, sandy silt.	
						0.0	ML		Dark gray, moist, sandy silt, staining, hydrocarbon odor.	
						0.0			Gray, wet, sandy silt.	
						0.0			B-21A @4-5	
5						0.0			B-21A @6-7	
						0.0			Total Depth = 7 feet bgs.	
						0.0			Groundwater encountered at 3.5 feet bgs.	
						0.0			Backfilled with grout same day.	
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-17-12	B-22A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 14 inches.	
									No recovery to approximately 3 feet bgs.	
								ML	ALLUVIUM: Brown, wet, sandy silt.	
4.5			B-22A @4-5			0.0				
5.17						0.0				
6.7			B-22A @6-7			0.0			Olive gray, moist, sandy silt.	
						0.0			Total Depth = 7 feet bgs.	
									Groundwater encountered at 5.17 feet bgs.	
									Backfilled with grout same day.	
10										
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-17-12</u> BORING NO. <u>B-22B</u>		
	Bulk	Driven							GROUND ELEVATION _____ SHEET <u>1</u> OF <u>1</u>		METHOD OF DRILLING <u>GEOPROBE</u>
									DRIVE WEIGHT <u>N/A</u> DROP <u>N/A</u>		
									SAMPLED BY <u>MAT</u> LOGGED BY <u>MAT</u> REVIEWED BY _____		
									DESCRIPTION/INTERPRETATION		
0									CONCRETE: Approximately 8 inches.		
						0.0			ALLUVIUM: Medium brown, moist, sandy silt; little gravel.		
						0.0					
						0.0		ML	Dark gray, wet, sandy silt, staining, hydrocarbon odor.		
						0.0					
5			B-22B @4-5			0.0					
						0.0					
						0.0					
			B-22B @6-7			0.0			Olive gray, moist, sandy silt.		
						0.0					
						0.0			Total Depth = 7 feet bgs.		
									Groundwater encountered at 5.17 feet bgs.		
									Backfilled with grout same day.		
10											
20											



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.
	Bulk	Driven							12-17-12	B-23A
									GROUND ELEVATION	SHEET 1 OF 1
									METHOD OF DRILLING	GEOPROBE
									DRIVE WEIGHT	N/A
									DROP	N/A
									SAMPLED BY	MAT
									LOGGED BY	MAT
									REVIEWED BY	
									DESCRIPTION/INTERPRETATION	
0									CONCRETE: Approximately 12 inches.	
									ALLUVIUM: Brown, moist, sandy silt; little gravel.	
								ML	Brown, moist, sandy silt.	
5									Dark gray, wet, sandy silt.	
									Gray, moist, clayey silt.	
10									Total Depth = 10 feet bgs.	
									Groundwater encountered at 5.17 feet bgs.	
									Backfilled with grout same day.	
15										
20										



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12-19-12 BORING NO. B-24A		
	Bulk	Driven							GROUND ELEVATION	SHEET 1 OF 1	METHOD OF DRILLING GEOPROBE
						DRIVE WEIGHT N/A DROP N/A			SAMPLED BY MAT LOGGED BY MAT REVIEWED BY		
									DESCRIPTION/INTERPRETATION		
0								ML	<u>ALLUVIUM:</u> Brown, moist, sandy silt; little gravel.		
5						0.0			Dark gray, wet, sandy silt, staining.		
						0.0			Light gray, moist, sandy silt.		
10						0.0			Total Depth = 7 feet bgs.  Groundwater encountered at 3.5 feet bgs.  Backfilled with grout same day.		
15											
20											



**BORING LOG**

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DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-19-12</u> BORING NO. <u>B-24B</u>		
	Bulk	Driven							GROUND ELEVATION _____	SHEET <u>1</u> OF <u>1</u>	METHOD OF DRILLING <u>GEOPROBE</u>
									DRIVE WEIGHT <u>N/A</u>	DROP <u>N/A</u>	
									SAMPLED BY <u>MAT</u> LOGGED BY <u>MAT</u> REVIEWED BY _____		
									DESCRIPTION/INTERPRETATION		
0								ML	<u>ALLUVIUM:</u> Brown, moist, sandy silt; little gravel.		
									Dark gray, wet, sandy silt, staining.		
5						0.0			B-24B @4-5		
						0.0			Dark gray, wet, sandy silt, staining.		
						0.0			B-24B @6-7		
						0.0			Light gray, moist, sandy silt.		
10									Total Depth = 7 feet bgs.		
									Groundwater encountered at 3.5 feet bgs.		
									Backfilled with grout same day.		
15											
20											



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FIGURE

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>12-19-12</u> BORING NO. <u>B-25A</u>		
	Bulk Driven								GROUND ELEVATION _____	SHEET <u>1</u> OF <u>1</u>	METHOD OF DRILLING <u>GEOPROBE</u>
0								ML	SAMPLED BY <u>MAT</u> LOGGED BY <u>MAT</u> REVIEWED BY _____		
0						0.0			DESCRIPTION/INTERPRETATION		
0						0.0			ALLUVIUM: Brown, wet, sandy silt; little gravel.		
0						0.0			Dark gray, wet, sandy silt, staining.		
5						0.0					
10						0.0			Total Depth = 7 feet bgs. Groundwater encountered at 1 foot bgs. Backfilled with grout same day.		
15											
20											



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FIGURE



**APPENDIX D**  
**LABORATORY ANALYTICAL REPORTS**

# 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: 720-46733-1

Client Project/Site: Western Forge & Flange

For:

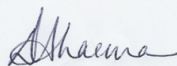
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

12/24/2012 1:37:34 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46733-1

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46733-1

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**Job ID: 720-46733-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46733-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/17/2012 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.2° C.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Detection Summary

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

TestAmerica Job ID: 720-46733-1

## Client Sample ID: B-22B

## Lab Sample ID: 720-46733-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.013		0.010		mg/L	1		6010B	Dissolved
Arsenic	0.011		0.010		mg/L	1		6010B	Dissolved
Barium	0.30		0.0050		mg/L	1		6010B	Dissolved
Chromium	0.017		0.010		mg/L	1		6010B	Dissolved
Cobalt	0.051		0.0020		mg/L	1		6010B	Dissolved
Lead	0.18		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.39		0.010		mg/L	1		6010B	Dissolved
Nickel	0.033		0.010		mg/L	1		6010B	Dissolved
Zinc	0.023		0.020		mg/L	1		6010B	Dissolved
Mercury	0.00021		0.00020		mg/L	1		7470A	Dissolved
Cr (VI)	0.57		0.50		ug/L	1		7199	Dissolved

## Client Sample ID: B-22A

## Lab Sample ID: 720-46733-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.21		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0024		0.0020		mg/L	1		6010B	Dissolved
Copper	0.14		0.020		mg/L	1		6010B	Dissolved
Lead	0.40		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.87		0.010		mg/L	1		6010B	Dissolved
Nickel	0.041		0.010		mg/L	1		6010B	Dissolved
Zinc	0.20		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	590		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.45		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-23A

## Lab Sample ID: 720-46733-3

No Detections

## Client Sample ID: B-20A

## Lab Sample ID: 720-46733-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	3000		20		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	3.1		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-21A

## Lab Sample ID: 720-46733-5

No Detections

## Client Sample ID: B-9A

## Lab Sample ID: 720-46733-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.029		0.010		mg/L	1		6010B	Dissolved
Barium	3.8		0.0050		mg/L	1		6010B	Dissolved
Beryllium	0.011		0.0020		mg/L	1		6010B	Dissolved
Chromium	0.075		0.010		mg/L	1		6010B	Dissolved
Cobalt	0.11		0.0020		mg/L	1		6010B	Dissolved
Copper	0.20		0.020		mg/L	1		6010B	Dissolved
Lead	0.97		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.013		0.010		mg/L	1		6010B	Dissolved

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46733-1

**Client Sample ID: B-9A (Continued)**

**Lab Sample ID: 720-46733-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.18		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.34		0.010		mg/L	1		6010B	Dissolved
Zinc	1.8		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	2200		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.37		0.10		ppth	1		SM 2520B	Total/NA

# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		540		ug/L		12/18/12 13:45	12/19/12 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				12/18/12 13:45	12/19/12 01:29	1
p-Terphenyl	126		31 - 150				12/18/12 13:45	12/19/12 01:29	1

**Client Sample ID: B-23A**  
**Date Collected: 12/17/12 12:10**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		620		ug/L		12/18/12 13:45	12/19/12 01:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.003		0 - 5				12/18/12 13:45	12/19/12 01:58	1
p-Terphenyl	84		31 - 150				12/18/12 13:45	12/19/12 01:58	1

**Client Sample ID: B-20A**  
**Date Collected: 12/17/12 12:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		670		ug/L		12/18/12 13:45	12/19/12 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.001		0 - 5				12/18/12 13:45	12/19/12 02:26	1
p-Terphenyl	77		31 - 150				12/18/12 13:45	12/19/12 02:26	1

**Client Sample ID: B-21A**  
**Date Collected: 12/17/12 14:30**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		620		ug/L		12/18/12 13:45	12/19/12 02:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5				12/18/12 13:45	12/19/12 02:55	1
p-Terphenyl	77		31 - 150				12/18/12 13:45	12/19/12 02:55	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		620		ug/L		12/18/12 13:45	12/19/12 03:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				12/18/12 13:45	12/19/12 03:24	1
p-Terphenyl	53		31 - 150				12/18/12 13:45	12/19/12 03:24	1

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# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-22B**  
**Date Collected: 12/17/12 10:15**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.013		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Arsenic	0.011		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Barium	0.30		0.0050		mg/L		12/19/12 14:23	12/21/12 21:33	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 21:33	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 03:59	1
Chromium	0.017		0.010		mg/L		12/19/12 14:23	12/21/12 21:33	1
Cobalt	0.051		0.0020		mg/L		12/19/12 14:23	12/21/12 03:59	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 21:33	1
Lead	0.18		0.0050		mg/L		12/19/12 14:23	12/21/12 03:59	1
Molybdenum	0.39		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Nickel	0.033		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 03:59	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 03:59	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Zinc	0.023		0.020		mg/L		12/19/12 14:23	12/21/12 21:33	1

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Barium	0.21		0.0050		mg/L		12/19/12 14:23	12/21/12 21:51	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 21:51	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:08	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 21:51	1
Cobalt	0.0024		0.0020		mg/L		12/19/12 14:23	12/21/12 04:08	1
Copper	0.14		0.020		mg/L		12/19/12 14:23	12/21/12 21:51	1
Lead	0.40		0.0050		mg/L		12/19/12 14:23	12/21/12 04:08	1
Molybdenum	0.87		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Nickel	0.041		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:08	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:08	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Zinc	0.20		0.020		mg/L		12/19/12 14:23	12/21/12 21:51	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Arsenic	0.029		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Barium	3.8		0.0050		mg/L		12/19/12 14:23	12/21/12 21:55	1
Beryllium	0.011		0.0020		mg/L		12/19/12 14:23	12/21/12 21:55	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:12	1
Chromium	0.075		0.010		mg/L		12/19/12 14:23	12/21/12 21:55	1
Cobalt	0.11		0.0020		mg/L		12/19/12 14:23	12/21/12 04:12	1
Copper	0.20		0.020		mg/L		12/19/12 14:23	12/21/12 21:55	1

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# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: B-9A  
Date Collected: 12/17/12 15:40  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46733-6  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.97		0.0050		mg/L		12/19/12 14:23	12/21/12 04:12	1
Molybdenum	0.013		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Nickel	0.18		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:12	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:12	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Vanadium	0.34		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Zinc	1.8		0.020		mg/L		12/19/12 14:23	12/21/12 21:55	1

# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: B-22B  
Date Collected: 12/17/12 10:15  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46733-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00021		0.00020		mg/L		12/19/12 13:18	12/19/12 19:04	1

Client Sample ID: B-22A  
Date Collected: 12/17/12 10:25  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46733-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 19:06	1

Client Sample ID: B-9A  
Date Collected: 12/17/12 15:40  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46733-6  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 19:08	1

# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## General Chemistry

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	590		10		mg/L			12/18/12 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.45		0.10		ppth			12/20/12 13:13	1

**Client Sample ID: B-20A**  
**Date Collected: 12/17/12 12:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3000		20		mg/L			12/18/12 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	3.1		0.10		ppth			12/20/12 13:15	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2200		10		mg/L			12/18/12 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.37		0.10		ppth			12/20/12 13:16	1

# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## General Chemistry - Dissolved

**Client Sample ID: B-22B**  
**Date Collected: 12/17/12 10:15**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.57		0.50		ug/L			12/17/12 18:29	1

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/17/12 19:03	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/17/12 19:15	1

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

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

**Lab Sample ID: MB 720-127317/1-A**  
**Matrix: Water**  
**Analysis Batch: 127282**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127317**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		500		ug/L		12/18/12 13:45	12/19/12 01:00	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5				12/18/12 13:45	12/19/12 01:00	1
p-Terphenyl	86		31 - 150				12/18/12 13:45	12/19/12 01:00	1

**Lab Sample ID: LCS 720-127317/2-A**  
**Matrix: Water**  
**Analysis Batch: 127282**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127317**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1420		ug/L		57	32 - 119
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
p-Terphenyl	92		31 - 150				

**Lab Sample ID: LCSD 720-127317/3-A**  
**Matrix: Water**  
**Analysis Batch: 127282**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127317**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	2500	1440		ug/L		57	32 - 119	1	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
p-Terphenyl	102		31 - 150						

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 720-127402/2-A**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.03		mg/L		103	80 - 120
Arsenic	1.00	1.05		mg/L		105	80 - 120
Cadmium	1.00	0.947		mg/L		95	80 - 120
Cobalt	1.00	1.05		mg/L		105	80 - 120
Lead	1.00	0.997		mg/L		100	80 - 120
Molybdenum	1.00	0.972		mg/L		97	80 - 120
Nickel	1.00	0.991		mg/L		99	80 - 120
Selenium	1.00	0.882		mg/L		88	80 - 120
Silver	0.500	0.522		mg/L		104	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120
Vanadium	1.00	1.06		mg/L		106	80 - 120

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-127402/2-A

Matrix: Water

Analysis Batch: 127648

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 127402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.945		mg/L		94	80 - 120
Beryllium	1.00	0.964		mg/L		96	80 - 120
Chromium	1.00	0.960		mg/L		96	80 - 120
Copper	1.00	0.974		mg/L		97	80 - 120
Zinc	1.00	0.963		mg/L		96	80 - 120

Lab Sample ID: LCSD 720-127402/3-A

Matrix: Water

Analysis Batch: 127550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 127402

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	1.03		mg/L		103	80 - 120	0	20
Arsenic	1.00	1.05		mg/L		105	80 - 120	0	20
Cadmium	1.00	0.953		mg/L		95	80 - 120	1	20
Cobalt	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	1.00	1.00		mg/L		100	80 - 120	0	20
Molybdenum	1.00	0.978		mg/L		98	80 - 120	1	20
Nickel	1.00	0.995		mg/L		99	80 - 120	0	20
Selenium	1.00	0.892		mg/L		89	80 - 120	1	20
Silver	0.500	0.530		mg/L		106	80 - 120	1	20
Thallium	1.00	1.01		mg/L		101	80 - 120	0	20
Vanadium	1.00	1.07		mg/L		107	80 - 120	1	20

Lab Sample ID: LCSD 720-127402/3-A

Matrix: Water

Analysis Batch: 127648

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 127402

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.954		mg/L		95	80 - 120	1	20
Beryllium	1.00	0.978		mg/L		98	80 - 120	1	20
Chromium	1.00	0.968		mg/L		97	80 - 120	1	20
Copper	1.00	0.985		mg/L		98	80 - 120	1	20
Zinc	1.00	0.974		mg/L		97	80 - 120	1	20

Lab Sample ID: MB 720-127270/1-C

Matrix: Water

Analysis Batch: 127550

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 03:46	1
Cobalt	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 03:46	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 03:46	1
Molybdenum	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 03:46	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 03:46	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-127270/1-C  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1

Lab Sample ID: MB 720-127270/1-C  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 21:20	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 21:20	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 21:20	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 21:20	1
Zinc	ND		0.020		mg/L		12/19/12 14:23	12/21/12 21:20	1

Lab Sample ID: 720-46733-1 MS  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.013		1.00	1.03		mg/L		102	75 - 125
Arsenic	0.011		1.00	1.10		mg/L		109	75 - 125
Cadmium	ND		1.00	0.923		mg/L		92	75 - 125
Cobalt	0.051		1.00	1.05		mg/L		100	75 - 125
Lead	0.18		1.00	1.10		mg/L		92	75 - 125
Molybdenum	0.39		1.00	1.36		mg/L		96	75 - 125
Nickel	0.033		1.00	0.969		mg/L		94	75 - 125
Selenium	ND		1.00	0.892		mg/L		89	75 - 125
Silver	ND		0.500	0.529		mg/L		106	75 - 125
Thallium	ND		1.00	0.880		mg/L		88	75 - 125
Vanadium	ND		1.00	1.07		mg/L		107	75 - 125

Lab Sample ID: 720-46733-1 MS  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.30		1.00	1.24		mg/L		94	75 - 125
Beryllium	ND		1.00	0.970		mg/L		97	75 - 125
Chromium	0.017		1.00	0.982		mg/L		97	75 - 125
Copper	ND		1.00	0.990		mg/L		98	75 - 125
Zinc	0.023		1.00	0.963		mg/L		94	75 - 125

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.013		1.00	1.03		mg/L		101	75 - 125	0	20
Arsenic	0.011		1.00	1.09		mg/L		108	75 - 125	1	20
Cadmium	ND		1.00	0.920		mg/L		92	75 - 125	0	20

TestAmerica Pleasanton



# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	0.051		1.00	1.04		mg/L		99	75 - 125	1	20
Lead	0.18		1.00	1.10		mg/L		92	75 - 125	0	20
Molybdenum	0.39		1.00	1.36		mg/L		96	75 - 125	0	20
Nickel	0.033		1.00	0.965		mg/L		93	75 - 125	0	20
Selenium	ND		1.00	0.893		mg/L		89	75 - 125	0	20
Silver	ND		0.500	0.526		mg/L		105	75 - 125	1	20
Thallium	ND		1.00	0.876		mg/L		87	75 - 125	0	20
Vanadium	ND		1.00	1.06		mg/L		106	75 - 125	1	20

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Barium	0.30		1.00	1.23		mg/L		93	75 - 125	1	20
Beryllium	ND		1.00	0.962		mg/L		96	75 - 125	1	20
Chromium	0.017		1.00	0.965		mg/L		95	75 - 125	2	20
Copper	ND		1.00	0.972		mg/L		96	75 - 125	2	20
Zinc	0.023		1.00	0.968		mg/L		94	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-127394/1-A  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 127394

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 18:15		1

Lab Sample ID: LCS 720-127394/2-A  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 127394

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Mercury	0.0100	0.0103		mg/L		103	85 - 115

Lab Sample ID: LCSD 720-127394/3-A  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 127394

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
							Added		
Mercury	0.0100	0.0103		mg/L		103	85 - 115	0	20

Lab Sample ID: MB 720-127270/1-B  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127394

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 19:01		1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 720-127340/1-A  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: Method Blank  
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/17/12 16:25	1

Lab Sample ID: LCS 720-127340/2-A  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: Lab Control Sample  
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	1.99		ug/L		100	90 - 110

Lab Sample ID: 720-46733-1 MS  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: B-22B  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.57		2.00	2.54		ug/L		99	80 - 120

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: B-22B  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.57		2.00	2.55		ug/L		99	80 - 120	0	20

## Method: SM 2520B - Salinity

Lab Sample ID: MB 720-127494/3  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.10		ppth			12/20/12 13:09	1

Lab Sample ID: LCS 720-127494/4  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Salinity	35.0	36.6		ppth		104	90 - 110

Lab Sample ID: LCSD 720-127494/5  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Salinity	35.0	36.5		ppth		104	90 - 110	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 720-127318/2  
 Matrix: Water  
 Analysis Batch: 127318

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			12/18/12 13:59	1

Lab Sample ID: LCS 720-127318/1  
 Matrix: Water  
 Analysis Batch: 127318

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	946		mg/L		95	85 - 115

# QC Association Summary

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

TestAmerica Job ID: 720-46733-1

## GC Semi VOA

### Analysis Batch: 127282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Silica Gel Cleanup	Water	8015B	127317
720-46733-3	B-23A	Silica Gel Cleanup	Water	8015B	127317
720-46733-4	B-20A	Silica Gel Cleanup	Water	8015B	127317
720-46733-5	B-21A	Silica Gel Cleanup	Water	8015B	127317
720-46733-6	B-9A	Silica Gel Cleanup	Water	8015B	127317
LCS 720-127317/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	127317
LCSD 720-127317/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	127317
MB 720-127317/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	127317

### Prep Batch: 127317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-3	B-23A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-4	B-20A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-5	B-21A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-6	B-9A	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-127317/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-127317/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-127317/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

## Metals

### Prep Batch: 127394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	7470A	
720-46733-2	B-22A	Dissolved	Water	7470A	
720-46733-6	B-9A	Dissolved	Water	7470A	
LCS 720-127394/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-127394/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-127270/1-B	Method Blank	Dissolved	Water	7470A	
MB 720-127394/1-A	Method Blank	Total/NA	Water	7470A	

### Prep Batch: 127402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	3005A	
720-46733-1 MS	B-22B	Dissolved	Water	3005A	
720-46733-1 MSD	B-22B	Dissolved	Water	3005A	
720-46733-2	B-22A	Dissolved	Water	3005A	
720-46733-6	B-9A	Dissolved	Water	3005A	
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-127270/1-C	Method Blank	Dissolved	Water	3005A	

### Analysis Batch: 127431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	7470A	127394
720-46733-2	B-22A	Dissolved	Water	7470A	127394
720-46733-6	B-9A	Dissolved	Water	7470A	127394
LCS 720-127394/2-A	Lab Control Sample	Total/NA	Water	7470A	127394
LCSD 720-127394/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	127394

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46733-1

## Metals (Continued)

### Analysis Batch: 127431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-127270/1-B	Method Blank	Dissolved	Water	7470A	127394
MB 720-127394/1-A	Method Blank	Total/NA	Water	7470A	127394

### Analysis Batch: 127550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MS	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MSD	B-22B	Dissolved	Water	6010B	127402
720-46733-2	B-22A	Dissolved	Water	6010B	127402
720-46733-6	B-9A	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402
LCS D 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127270/1-C	Method Blank	Dissolved	Water	6010B	127402

### Analysis Batch: 127648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MS	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MSD	B-22B	Dissolved	Water	6010B	127402
720-46733-2	B-22A	Dissolved	Water	6010B	127402
720-46733-6	B-9A	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402
LCS D 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127270/1-C	Method Blank	Dissolved	Water	6010B	127402

## General Chemistry

### Analysis Batch: 127229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	7199	
720-46733-1 MS	B-22B	Dissolved	Water	7199	
720-46733-1 MSD	B-22B	Dissolved	Water	7199	
720-46733-2	B-22A	Dissolved	Water	7199	
720-46733-6	B-9A	Dissolved	Water	7199	
LCS 720-127340/2-A	Lab Control Sample	Dissolved	Water	7199	
MB 720-127340/1-A	Method Blank	Dissolved	Water	7199	

### Analysis Batch: 127318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Total/NA	Water	SM 2540C	
720-46733-4	B-20A	Total/NA	Water	SM 2540C	
720-46733-6	B-9A	Total/NA	Water	SM 2540C	
LCS 720-127318/1	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 720-127318/2	Method Blank	Total/NA	Water	SM 2540C	

### Analysis Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Total/NA	Water	SM 2520B	
720-46733-4	B-20A	Total/NA	Water	SM 2520B	
720-46733-6	B-9A	Total/NA	Water	SM 2520B	

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46733-1

## General Chemistry (Continued)

### Analysis Batch: 127494 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127494/4	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 720-127494/5	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
MB 720-127494/3	Method Blank	Total/NA	Water	SM 2520B	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Lab Chronicle

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

TestAmerica Job ID: 720-46733-1

**Client Sample ID: B-22B**

**Lab Sample ID: 720-46733-1**

Date Collected: 12/17/12 10:15

Matrix: Water

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127394	12/19/12 13:18	ET	TAL SF
Dissolved	Analysis	7470A		1	127431	12/19/12 19:04	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 03:59	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 21:33	CAM	TAL SF
Dissolved	Analysis	7199		1	127229	12/17/12 18:29	EYT	TAL SF

**Client Sample ID: B-22A**

**Lab Sample ID: 720-46733-2**

Date Collected: 12/17/12 10:25

Matrix: Water

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 01:29	DH	TAL SF
Dissolved	Prep	7470A			127394	12/19/12 13:18	ET	TAL SF
Dissolved	Analysis	7470A		1	127431	12/19/12 19:06	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:08	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 21:51	CAM	TAL SF
Dissolved	Analysis	7199		1	127229	12/17/12 19:03	EYT	TAL SF
Total/NA	Analysis	SM 2540C		1	127318	12/18/12 13:59	DFR	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:13	MJK	TAL SF

**Client Sample ID: B-23A**

**Lab Sample ID: 720-46733-3**

Date Collected: 12/17/12 12:10

Matrix: Water

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 01:58	DH	TAL SF

**Client Sample ID: B-20A**

**Lab Sample ID: 720-46733-4**

Date Collected: 12/17/12 12:40

Matrix: Water

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 02:26	DH	TAL SF
Total/NA	Analysis	SM 2540C		1	127318	12/18/12 13:59	DFR	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:15	MJK	TAL SF

# Lab Chronicle

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

TestAmerica Job ID: 720-46733-1

**Client Sample ID: B-21A**

**Lab Sample ID: 720-46733-5**

**Date Collected: 12/17/12 14:30**

**Matrix: Water**

**Date Received: 12/17/12 17:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 02:55	DH	TAL SF

**Client Sample ID: B-9A**

**Lab Sample ID: 720-46733-6**

**Date Collected: 12/17/12 15:40**

**Matrix: Water**

**Date Received: 12/17/12 17:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 03:24	DH	TAL SF
Dissolved	Prep	7470A			127394	12/19/12 13:18	ET	TAL SF
Dissolved	Analysis	7470A		1	127431	12/19/12 19:08	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:12	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 21:55	CAM	TAL SF
Dissolved	Analysis	7199		1	127229	12/17/12 19:15	EYT	TAL SF
Total/NA	Analysis	SM 2540C		1	127318	12/18/12 13:59	DFR	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:16	MJK	TAL SF

**Laboratory References:**

TAL SF = 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: 720-46733-1

## 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

- 1
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# Method Summary

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

TestAmerica Job ID: 720-46733-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7470A	Mercury (CVAA)	SW846	TAL SF
7199	Chromium, Hexavalent (IC)	SW846	TAL SF
SM 2520B	Salinity	SM	TAL SF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SF

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

**Laboratory References:**

TAL SF = 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: 720-46733-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46733-1	B-22B	Water	12/17/12 10:15	12/17/12 17:30
720-46733-2	B-22A	Water	12/17/12 10:25	12/17/12 17:30
720-46733-3	B-23A	Water	12/17/12 12:10	12/17/12 17:30
720-46733-4	B-20A	Water	12/17/12 12:40	12/17/12 17:30
720-46733-5	B-21A	Water	12/17/12 14:30	12/17/12 17:30
720-46733-6	B-9A	Water	12/17/12 15:40	12/17/12 17:30

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720.46733

Regulatory Program:  DW  NPDES  RCRA  Other:

143024

<b>Client Contact</b> Your Company Name here <b>Ninyo &amp; Moore</b> Address <b>1956 Webster St. # 400</b> City/State/Zip <b>Oakland CA 94612</b> (xxx) xxx-xxxx <b>510.343.3000</b> Phone (xxx) xxx-xxxx <b>-3001</b> FAX Project Name: <b>Western Forge &amp; Flange</b> Site: <b>540 Cleveland Ave., Albany, CA</b> P O # <b>401 823 001</b>		<b>Project Manager: Melissa Terry</b> Tel/Fax: <b>510.343.3000</b> <b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) _____ TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> <b>1 week</b> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> Date: _____ <b>Lab Contact:</b> Carrier: _____ COC No: _____ of _____ COCs						
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N) Composite = C / Grab (G)	TPH-hc Title 22 Metals Hexavalent Chromium TDS and Salinity	<b>For Lab Use Only:</b> Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____ Sample Specific Notes: _____	
B-22B		12/17/12	1015	Water		2	N	X	X	
B-22A			1025			4		X	X	
B-23A			1210			1		X	X	
B-20A			1240			2		X	X	
<del>B-20B</del> B-21A			1430			1		X	X	
B-9A			1540			4		X	X	
Preservation Used: <b>1= Ice</b> 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. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month ) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months						
Special Instructions/QC Requirements & Comments:		TPH-hydraulic oil by 8015M w/silica gel cleanup Title 22 Metals by 6010B		Hexavalent Chromium by 7196A TDS/salinity by 160.1/SM2520B						
Relinquished by: <b>Melissa Terry MTerry</b>	Company: <b>Ninyo &amp; Moore</b>	Date/Time: <b>12/17 1540</b>	Received by: 	Company: <b>TASF</b>	Date/Time: <b>12-17-12 1540</b>					
Relinquished by: 	Company: <b>TASF</b>	Date/Time: <b>12-17-12 1730</b>	Received by: 	Company: <b>TASF</b>	Date/Time: <b>12/17/12 1730</b>					

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38,4.20C



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46733-1

**Login Number: 46733**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Apostol, Anita**

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	

# 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: 720-46733-1

Client Project/Site: Western Forge & Flange

Revision: 1

For:

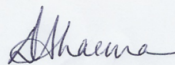
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/22/2013 5:08:20 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46733-1

### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46733-1

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**Job ID: 720-46733-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46733-1

**Comments**

The report is revised to report MDLs for TEPH.

**Receipt**

The samples were received on 12/17/2012 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.2° C.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

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: 720-46733-1

## Client Sample ID: B-22B

## Lab Sample ID: 720-46733-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.013		0.010		mg/L	1		6010B	Dissolved
Arsenic	0.011		0.010		mg/L	1		6010B	Dissolved
Barium	0.30		0.0050		mg/L	1		6010B	Dissolved
Chromium	0.017		0.010		mg/L	1		6010B	Dissolved
Cobalt	0.051		0.0020		mg/L	1		6010B	Dissolved
Lead	0.18		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.39		0.010		mg/L	1		6010B	Dissolved
Nickel	0.033		0.010		mg/L	1		6010B	Dissolved
Zinc	0.023		0.020		mg/L	1		6010B	Dissolved
Mercury	0.00021		0.00020		mg/L	1		7470A	Dissolved
Cr (VI)	0.57		0.50		ug/L	1		7199	Dissolved

## Client Sample ID: B-22A

## Lab Sample ID: 720-46733-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	140	J	540	40	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.21		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0024		0.0020		mg/L	1		6010B	Dissolved
Copper	0.14		0.020		mg/L	1		6010B	Dissolved
Lead	0.40		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.87		0.010		mg/L	1		6010B	Dissolved
Nickel	0.041		0.010		mg/L	1		6010B	Dissolved
Zinc	0.20		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	590		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.45		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-23A

## Lab Sample ID: 720-46733-3

No Detections

## Client Sample ID: B-20A

## Lab Sample ID: 720-46733-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	3000		20		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	3.1		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-21A

## Lab Sample ID: 720-46733-5

No Detections

## Client Sample ID: B-9A

## Lab Sample ID: 720-46733-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	440	J	620	46	ug/L	1		8015B	Silica Gel Cleanup
Arsenic	0.029		0.010		mg/L	1		6010B	Dissolved
Barium	3.8		0.0050		mg/L	1		6010B	Dissolved
Beryllium	0.011		0.0020		mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46733-1

**Client Sample ID: B-9A (Continued)**

**Lab Sample ID: 720-46733-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chromium	0.075		0.010		mg/L			1	6010B	Dissolved
Cobalt	0.11		0.0020		mg/L			1	6010B	Dissolved
Copper	0.20		0.020		mg/L			1	6010B	Dissolved
Lead	0.97		0.0050		mg/L			1	6010B	Dissolved
Molybdenum	0.013		0.010		mg/L			1	6010B	Dissolved
Nickel	0.18		0.010		mg/L			1	6010B	Dissolved
Vanadium	0.34		0.010		mg/L			1	6010B	Dissolved
Zinc	1.8		0.020		mg/L			1	6010B	Dissolved
Total Dissolved Solids	2200		10		mg/L			1	SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Salinity	0.37		0.10		ppth			1	SM 2520B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton



# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	140	J	540	40	ug/L		12/18/12 13:45	12/19/12 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				12/18/12 13:45	12/19/12 01:29	1
p-Terphenyl	126		31 - 150				12/18/12 13:45	12/19/12 01:29	1

**Client Sample ID: B-23A**  
**Date Collected: 12/17/12 12:10**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		620	46	ug/L		12/18/12 13:45	12/19/12 01:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.003		0 - 5				12/18/12 13:45	12/19/12 01:58	1
p-Terphenyl	84		31 - 150				12/18/12 13:45	12/19/12 01:58	1

**Client Sample ID: B-20A**  
**Date Collected: 12/17/12 12:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		670	50	ug/L		12/18/12 13:45	12/19/12 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.001		0 - 5				12/18/12 13:45	12/19/12 02:26	1
p-Terphenyl	77		31 - 150				12/18/12 13:45	12/19/12 02:26	1

**Client Sample ID: B-21A**  
**Date Collected: 12/17/12 14:30**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		620	46	ug/L		12/18/12 13:45	12/19/12 02:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5				12/18/12 13:45	12/19/12 02:55	1
p-Terphenyl	77		31 - 150				12/18/12 13:45	12/19/12 02:55	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	440	J	620	46	ug/L		12/18/12 13:45	12/19/12 03:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				12/18/12 13:45	12/19/12 03:24	1
p-Terphenyl	53		31 - 150				12/18/12 13:45	12/19/12 03:24	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-22B**  
**Date Collected: 12/17/12 10:15**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.013		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Arsenic	0.011		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Barium	0.30		0.0050		mg/L		12/19/12 14:23	12/21/12 21:33	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 21:33	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 03:59	1
Chromium	0.017		0.010		mg/L		12/19/12 14:23	12/21/12 21:33	1
Cobalt	0.051		0.0020		mg/L		12/19/12 14:23	12/21/12 03:59	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 21:33	1
Lead	0.18		0.0050		mg/L		12/19/12 14:23	12/21/12 03:59	1
Molybdenum	0.39		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Nickel	0.033		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 03:59	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 03:59	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:59	1
Zinc	0.023		0.020		mg/L		12/19/12 14:23	12/21/12 21:33	1

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Barium	0.21		0.0050		mg/L		12/19/12 14:23	12/21/12 21:51	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 21:51	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:08	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 21:51	1
Cobalt	0.0024		0.0020		mg/L		12/19/12 14:23	12/21/12 04:08	1
Copper	0.14		0.020		mg/L		12/19/12 14:23	12/21/12 21:51	1
Lead	0.40		0.0050		mg/L		12/19/12 14:23	12/21/12 04:08	1
Molybdenum	0.87		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Nickel	0.041		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:08	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:08	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:08	1
Zinc	0.20		0.020		mg/L		12/19/12 14:23	12/21/12 21:51	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Arsenic	0.029		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Barium	3.8		0.0050		mg/L		12/19/12 14:23	12/21/12 21:55	1
Beryllium	0.011		0.0020		mg/L		12/19/12 14:23	12/21/12 21:55	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:12	1
Chromium	0.075		0.010		mg/L		12/19/12 14:23	12/21/12 21:55	1
Cobalt	0.11		0.0020		mg/L		12/19/12 14:23	12/21/12 04:12	1
Copper	0.20		0.020		mg/L		12/19/12 14:23	12/21/12 21:55	1

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# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: B-9A  
Date Collected: 12/17/12 15:40  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46733-6  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.97		0.0050		mg/L		12/19/12 14:23	12/21/12 04:12	1
Molybdenum	0.013		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Nickel	0.18		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:12	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:12	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Vanadium	0.34		0.010		mg/L		12/19/12 14:23	12/21/12 04:12	1
Zinc	1.8		0.020		mg/L		12/19/12 14:23	12/21/12 21:55	1

# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 7470A - Mercury (CVAA) - Dissolved

**Client Sample ID: B-22B**  
**Date Collected: 12/17/12 10:15**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00021		0.00020		mg/L		12/19/12 13:18	12/19/12 19:04	1

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 19:06	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 19:08	1



# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## General Chemistry

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>590</b>		10		mg/L			12/18/12 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Salinity</b>	<b>0.45</b>		0.10		ppth			12/20/12 13:13	1

**Client Sample ID: B-20A**  
**Date Collected: 12/17/12 12:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>3000</b>		20		mg/L			12/18/12 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Salinity</b>	<b>3.1</b>		0.10		ppth			12/20/12 13:15	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>2200</b>		10		mg/L			12/18/12 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Salinity</b>	<b>0.37</b>		0.10		ppth			12/20/12 13:16	1



# Client Sample Results

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

TestAmerica Job ID: 720-46733-1

## General Chemistry - Dissolved

**Client Sample ID: B-22B**  
**Date Collected: 12/17/12 10:15**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.57		0.50		ug/L			12/17/12 18:29	1

**Client Sample ID: B-22A**  
**Date Collected: 12/17/12 10:25**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/17/12 19:03	1

**Client Sample ID: B-9A**  
**Date Collected: 12/17/12 15:40**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46733-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/17/12 19:15	1

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

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

**Lab Sample ID: MB 720-127317/1-A**  
**Matrix: Water**  
**Analysis Batch: 127282**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127317**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		500	37	ug/L		12/18/12 13:45	12/19/12 01:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5	12/18/12 13:45	12/19/12 01:00	1
p-Terphenyl	86		31 - 150	12/18/12 13:45	12/19/12 01:00	1

**Lab Sample ID: LCS 720-127317/2-A**  
**Matrix: Water**  
**Analysis Batch: 127282**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127317**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1420		ug/L		57	32 - 119

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	92		31 - 150

**Lab Sample ID: LCSD 720-127317/3-A**  
**Matrix: Water**  
**Analysis Batch: 127282**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127317**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	2500	1440		ug/L		57	32 - 119	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	102		31 - 150

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 720-127402/2-A**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.03		mg/L		103	80 - 120
Arsenic	1.00	1.05		mg/L		105	80 - 120
Cadmium	1.00	0.947		mg/L		95	80 - 120
Cobalt	1.00	1.05		mg/L		105	80 - 120
Lead	1.00	0.997		mg/L		100	80 - 120
Molybdenum	1.00	0.972		mg/L		97	80 - 120
Nickel	1.00	0.991		mg/L		99	80 - 120
Selenium	1.00	0.882		mg/L		88	80 - 120
Silver	0.500	0.522		mg/L		104	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120
Vanadium	1.00	1.06		mg/L		106	80 - 120

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# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 720-127402/2-A**  
**Matrix: Water**  
**Analysis Batch: 127648**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.945		mg/L		94	80 - 120
Beryllium	1.00	0.964		mg/L		96	80 - 120
Chromium	1.00	0.960		mg/L		96	80 - 120
Copper	1.00	0.974		mg/L		97	80 - 120
Zinc	1.00	0.963		mg/L		96	80 - 120

**Lab Sample ID: LCSD 720-127402/3-A**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	1.03		mg/L		103	80 - 120	0	20
Arsenic	1.00	1.05		mg/L		105	80 - 120	0	20
Cadmium	1.00	0.953		mg/L		95	80 - 120	1	20
Cobalt	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	1.00	1.00		mg/L		100	80 - 120	0	20
Molybdenum	1.00	0.978		mg/L		98	80 - 120	1	20
Nickel	1.00	0.995		mg/L		99	80 - 120	0	20
Selenium	1.00	0.892		mg/L		89	80 - 120	1	20
Silver	0.500	0.530		mg/L		106	80 - 120	1	20
Thallium	1.00	1.01		mg/L		101	80 - 120	0	20
Vanadium	1.00	1.07		mg/L		107	80 - 120	1	20

**Lab Sample ID: LCSD 720-127402/3-A**  
**Matrix: Water**  
**Analysis Batch: 127648**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.954		mg/L		95	80 - 120	1	20
Beryllium	1.00	0.978		mg/L		98	80 - 120	1	20
Chromium	1.00	0.968		mg/L		97	80 - 120	1	20
Copper	1.00	0.985		mg/L		98	80 - 120	1	20
Zinc	1.00	0.974		mg/L		97	80 - 120	1	20

**Lab Sample ID: MB 720-127270/1-C**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 127402**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 03:46	1
Cobalt	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 03:46	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 03:46	1
Molybdenum	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 03:46	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 03:46	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-127270/1-C  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 03:46	1

Lab Sample ID: MB 720-127270/1-C  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 21:20	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 21:20	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 21:20	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 21:20	1
Zinc	ND		0.020		mg/L		12/19/12 14:23	12/21/12 21:20	1

Lab Sample ID: 720-46733-1 MS  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.013		1.00	1.03		mg/L		102	75 - 125
Arsenic	0.011		1.00	1.10		mg/L		109	75 - 125
Cadmium	ND		1.00	0.923		mg/L		92	75 - 125
Cobalt	0.051		1.00	1.05		mg/L		100	75 - 125
Lead	0.18		1.00	1.10		mg/L		92	75 - 125
Molybdenum	0.39		1.00	1.36		mg/L		96	75 - 125
Nickel	0.033		1.00	0.969		mg/L		94	75 - 125
Selenium	ND		1.00	0.892		mg/L		89	75 - 125
Silver	ND		0.500	0.529		mg/L		106	75 - 125
Thallium	ND		1.00	0.880		mg/L		88	75 - 125
Vanadium	ND		1.00	1.07		mg/L		107	75 - 125

Lab Sample ID: 720-46733-1 MS  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.30		1.00	1.24		mg/L		94	75 - 125
Beryllium	ND		1.00	0.970		mg/L		97	75 - 125
Chromium	0.017		1.00	0.982		mg/L		97	75 - 125
Copper	ND		1.00	0.990		mg/L		98	75 - 125
Zinc	0.023		1.00	0.963		mg/L		94	75 - 125

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.013		1.00	1.03		mg/L		101	75 - 125	0	20
Arsenic	0.011		1.00	1.09		mg/L		108	75 - 125	1	20
Cadmium	ND		1.00	0.920		mg/L		92	75 - 125	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	0.051		1.00	1.04		mg/L		99	75 - 125	1	20
Lead	0.18		1.00	1.10		mg/L		92	75 - 125	0	20
Molybdenum	0.39		1.00	1.36		mg/L		96	75 - 125	0	20
Nickel	0.033		1.00	0.965		mg/L		93	75 - 125	0	20
Selenium	ND		1.00	0.893		mg/L		89	75 - 125	0	20
Silver	ND		0.500	0.526		mg/L		105	75 - 125	1	20
Thallium	ND		1.00	0.876		mg/L		87	75 - 125	0	20
Vanadium	ND		1.00	1.06		mg/L		106	75 - 125	1	20

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: B-22B  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Barium	0.30		1.00	1.23		mg/L		93	75 - 125	1	20
Beryllium	ND		1.00	0.962		mg/L		96	75 - 125	1	20
Chromium	0.017		1.00	0.965		mg/L		95	75 - 125	2	20
Copper	ND		1.00	0.972		mg/L		96	75 - 125	2	20
Zinc	0.023		1.00	0.968		mg/L		94	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-127394/1-A  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 127394

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil
	Result	Qualifier							
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 18:15	1

Lab Sample ID: LCS 720-127394/2-A  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 127394

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Mercury	0.0100	0.0103		mg/L		103	85 - 115

Lab Sample ID: LCSD 720-127394/3-A  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 127394

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
							Added		
Mercury	0.0100	0.0103		mg/L		103	85 - 115	0	20

Lab Sample ID: MB 720-127270/1-B  
Matrix: Water  
Analysis Batch: 127431

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127394

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil
	Result	Qualifier							
Mercury	ND		0.00020		mg/L		12/19/12 13:18	12/19/12 19:01	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 720-127340/1-A  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: Method Blank  
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/17/12 16:25	1

Lab Sample ID: LCS 720-127340/2-A  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: Lab Control Sample  
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	1.99		ug/L		100	90 - 110

Lab Sample ID: 720-46733-1 MS  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: B-22B  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.57		2.00	2.54		ug/L		99	80 - 120

Lab Sample ID: 720-46733-1 MSD  
Matrix: Water  
Analysis Batch: 127229

Client Sample ID: B-22B  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cr (VI)	0.57		2.00	2.55		ug/L		99	80 - 120	0	20

## Method: SM 2520B - Salinity

Lab Sample ID: MB 720-127494/3  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.10		ppth			12/20/12 13:09	1

Lab Sample ID: LCS 720-127494/4  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Salinity	35.0	36.6		ppth		104	90 - 110

Lab Sample ID: LCSD 720-127494/5  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Salinity	35.0	36.5		ppth		104	90 - 110	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46733-1

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 720-127318/2  
 Matrix: Water  
 Analysis Batch: 127318

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			12/18/12 13:59	1

Lab Sample ID: LCS 720-127318/1  
 Matrix: Water  
 Analysis Batch: 127318

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	946		mg/L		95	85 - 115

# QC Association Summary

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

TestAmerica Job ID: 720-46733-1

## GC Semi VOA

### Analysis Batch: 127282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Silica Gel Cleanup	Water	8015B	127317
720-46733-3	B-23A	Silica Gel Cleanup	Water	8015B	127317
720-46733-4	B-20A	Silica Gel Cleanup	Water	8015B	127317
720-46733-5	B-21A	Silica Gel Cleanup	Water	8015B	127317
720-46733-6	B-9A	Silica Gel Cleanup	Water	8015B	127317
LCS 720-127317/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	127317
LCSD 720-127317/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	127317
MB 720-127317/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	127317

### Prep Batch: 127317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-3	B-23A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-4	B-20A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-5	B-21A	Silica Gel Cleanup	Water	3510C SGC	
720-46733-6	B-9A	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-127317/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-127317/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-127317/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

## Metals

### Prep Batch: 127394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	7470A	
720-46733-2	B-22A	Dissolved	Water	7470A	
720-46733-6	B-9A	Dissolved	Water	7470A	
LCS 720-127394/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-127394/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-127270/1-B	Method Blank	Dissolved	Water	7470A	
MB 720-127394/1-A	Method Blank	Total/NA	Water	7470A	

### Prep Batch: 127402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	3005A	
720-46733-1 MS	B-22B	Dissolved	Water	3005A	
720-46733-1 MSD	B-22B	Dissolved	Water	3005A	
720-46733-2	B-22A	Dissolved	Water	3005A	
720-46733-6	B-9A	Dissolved	Water	3005A	
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-127270/1-C	Method Blank	Dissolved	Water	3005A	

### Analysis Batch: 127431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	7470A	127394
720-46733-2	B-22A	Dissolved	Water	7470A	127394
720-46733-6	B-9A	Dissolved	Water	7470A	127394
LCS 720-127394/2-A	Lab Control Sample	Total/NA	Water	7470A	127394
LCSD 720-127394/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	127394

TestAmerica Pleasanton



# QC Association Summary

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

TestAmerica Job ID: 720-46733-1

## Metals (Continued)

### Analysis Batch: 127431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-127270/1-B	Method Blank	Dissolved	Water	7470A	127394
MB 720-127394/1-A	Method Blank	Total/NA	Water	7470A	127394

### Analysis Batch: 127550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MS	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MSD	B-22B	Dissolved	Water	6010B	127402
720-46733-2	B-22A	Dissolved	Water	6010B	127402
720-46733-6	B-9A	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127270/1-C	Method Blank	Dissolved	Water	6010B	127402

### Analysis Batch: 127648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MS	B-22B	Dissolved	Water	6010B	127402
720-46733-1 MSD	B-22B	Dissolved	Water	6010B	127402
720-46733-2	B-22A	Dissolved	Water	6010B	127402
720-46733-6	B-9A	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127270/1-C	Method Blank	Dissolved	Water	6010B	127402

## General Chemistry

### Analysis Batch: 127229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-1	B-22B	Dissolved	Water	7199	
720-46733-1 MS	B-22B	Dissolved	Water	7199	
720-46733-1 MSD	B-22B	Dissolved	Water	7199	
720-46733-2	B-22A	Dissolved	Water	7199	
720-46733-6	B-9A	Dissolved	Water	7199	
LCS 720-127340/2-A	Lab Control Sample	Dissolved	Water	7199	
MB 720-127340/1-A	Method Blank	Dissolved	Water	7199	

### Analysis Batch: 127318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Total/NA	Water	SM 2540C	
720-46733-4	B-20A	Total/NA	Water	SM 2540C	
720-46733-6	B-9A	Total/NA	Water	SM 2540C	
LCS 720-127318/1	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 720-127318/2	Method Blank	Total/NA	Water	SM 2540C	

### Analysis Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46733-2	B-22A	Total/NA	Water	SM 2520B	
720-46733-4	B-20A	Total/NA	Water	SM 2520B	
720-46733-6	B-9A	Total/NA	Water	SM 2520B	

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46733-1

## General Chemistry (Continued)

### Analysis Batch: 127494 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127494/4	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 720-127494/5	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
MB 720-127494/3	Method Blank	Total/NA	Water	SM 2520B	

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# Lab Chronicle

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

TestAmerica Job ID: 720-46733-1

## Client Sample ID: B-22B

Date Collected: 12/17/12 10:15

Date Received: 12/17/12 17:30

## Lab Sample ID: 720-46733-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127394	12/19/12 13:18	ET	TAL SF
Dissolved	Analysis	7470A		1	127431	12/19/12 19:04	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 03:59	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 21:33	CAM	TAL SF
Dissolved	Analysis	7199		1	127229	12/17/12 18:29	EYT	TAL SF

## Client Sample ID: B-22A

Date Collected: 12/17/12 10:25

Date Received: 12/17/12 17:30

## Lab Sample ID: 720-46733-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 01:29	DH	TAL SF
Dissolved	Prep	7470A			127394	12/19/12 13:18	ET	TAL SF
Dissolved	Analysis	7470A		1	127431	12/19/12 19:06	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:08	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 21:51	CAM	TAL SF
Dissolved	Analysis	7199		1	127229	12/17/12 19:03	EYT	TAL SF
Total/NA	Analysis	SM 2540C		1	127318	12/18/12 13:59	DFR	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:13	MJK	TAL SF

## Client Sample ID: B-23A

Date Collected: 12/17/12 12:10

Date Received: 12/17/12 17:30

## Lab Sample ID: 720-46733-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 01:58	DH	TAL SF

## Client Sample ID: B-20A

Date Collected: 12/17/12 12:40

Date Received: 12/17/12 17:30

## Lab Sample ID: 720-46733-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 02:26	DH	TAL SF
Total/NA	Analysis	SM 2540C		1	127318	12/18/12 13:59	DFR	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:15	MJK	TAL SF

# Lab Chronicle

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

TestAmerica Job ID: 720-46733-1

**Client Sample ID: B-21A**

**Lab Sample ID: 720-46733-5**

**Date Collected: 12/17/12 14:30**

**Matrix: Water**

**Date Received: 12/17/12 17:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 02:55	DH	TAL SF

**Client Sample ID: B-9A**

**Lab Sample ID: 720-46733-6**

**Date Collected: 12/17/12 15:40**

**Matrix: Water**

**Date Received: 12/17/12 17:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127317	12/18/12 13:45	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127282	12/19/12 03:24	DH	TAL SF
Dissolved	Prep	7470A			127394	12/19/12 13:18	ET	TAL SF
Dissolved	Analysis	7470A		1	127431	12/19/12 19:08	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:12	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 21:55	CAM	TAL SF
Dissolved	Analysis	7199		1	127229	12/17/12 19:15	EYT	TAL SF
Total/NA	Analysis	SM 2540C		1	127318	12/18/12 13:59	DFR	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:16	MJK	TAL SF

**Laboratory References:**

TAL SF = 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: 720-46733-1

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46733-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7470A	Mercury (CVAA)	SW846	TAL SF
7199	Chromium, Hexavalent (IC)	SW846	TAL SF
SM 2520B	Salinity	SM	TAL SF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SF

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

**Laboratory References:**

TAL SF = 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: 720-46733-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46733-1	B-22B	Water	12/17/12 10:15	12/17/12 17:30
720-46733-2	B-22A	Water	12/17/12 10:25	12/17/12 17:30
720-46733-3	B-23A	Water	12/17/12 12:10	12/17/12 17:30
720-46733-4	B-20A	Water	12/17/12 12:40	12/17/12 17:30
720-46733-5	B-21A	Water	12/17/12 14:30	12/17/12 17:30
720-46733-6	B-9A	Water	12/17/12 15:40	12/17/12 17:30

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720.46733

Regulatory Program:  DW  NPDES  RCRA  Other:

143024

<b>Client Contact</b> Your Company Name here <u>Ninyo &amp; Moore</u> Address <u>1956 Webster St. # 400</u> City/State/Zip <u>Oakland CA 94612</u> (xxx) xxx-xxxx <u>510.343.3000</u> Phone (xxx) xxx-xxxx <u>-3001</u> FAX Project Name: <u>Western Forge &amp; Flange</u> Site: <u>540 Cleveland Ave., Albany, CA</u> P O # <u>401823001</u>		<b>Project Manager:</b> <u>Melissa Terry</u> Tel/Fax: <u>510.343.3000</u> <b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) _____ TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> <u>1 week</u> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> _____ Date: _____ <b>Lab Contact:</b> _____ Carrier: _____ COC No: _____ of _____ COCs							
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N) Composite = C / Grab (G)	TPH-hc Title 22 Metals Hexavalent Chromium TDS and Salinity	<b>For Lab Use Only:</b> Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____ Sample Specific Notes: _____		
B-22B		12/17/12	1015	water	water	2	N/A	X	X	X	
B-22A			1025			4		X	X	X	
B-23A			1210			1		X	X	X	
B-20A			1240			2		X	X	X	
<del>B-20B</del> B-21A			1430			1		X	X	X	
B-9A			1540			4		X	X	X	
Preservation Used: <u>(1= Ice)</u> 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. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		38,4.20C					
Special Instructions/QC Requirements & Comments:		TPH-hydraulic oil by 8015M w/silica gel cleanup Title 22 Metals by 6010B		Hexavalent Chromium by 7196A TDS/salinity by 160.1/SM2520B							
Relinquished by: <u>Melissa Terry MTerry</u>		Company: <u>Ninyo &amp; Moore</u>		Date/Time: <u>12/17 1540</u>		Received by: <u>[Signature]</u>		Company: <u>TASF</u>		Date/Time: <u>12-17-12 1540</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>TASF</u>		Date/Time: <u>12-17-12 1730</u>		Received by: <u>[Signature]</u>		Company: <u>TASF</u>		Date/Time: _____	
Relinquished by: _____		Company: _____		Date/Time: _____		Received in Laboratory by: <u>[Signature]</u>		Company: <u>TASF</u>		Date/Time: <u>12/17/12 1730</u>	

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1/22/2013





## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46733-1

**Login Number: 46733**

**List Number: 1**

**Creator: Apostol, Anita**

**List Source: TestAmerica Pleasanton**

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	



# 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: 720-46736-1

Client Project/Site: Western Forge & Flange

For:

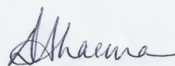
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

12/24/2012 2:02:06 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46736-1

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46736-1

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**Job ID: 720-46736-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46736-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/17/2012 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.2° C.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46736-1

## Client Sample ID: B-22B@4-5

Lab Sample ID: 720-46736-1

No Detections

## Client Sample ID: B-22B@6-7

Lab Sample ID: 720-46736-2

No Detections

## Client Sample ID: B-22A@4-5

Lab Sample ID: 720-46736-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	10		9.8		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]anthracene	36		9.8		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	33		9.8		ug/Kg	2		8270C SIM	Total/NA
Benzo[b]fluoranthene	51		9.8		ug/Kg	2		8270C SIM	Total/NA
Benzo[g,h,i]perylene	28		9.8		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	20		9.8		ug/Kg	2		8270C SIM	Total/NA
Chrysene	65		9.8		ug/Kg	2		8270C SIM	Total/NA
Dibenz(a,h)anthracene	11		9.8		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	73		9.8		ug/Kg	2		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	27		9.8		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	60		9.8		ug/Kg	2		8270C SIM	Total/NA
Pyrene	63		9.8		ug/Kg	2		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	57		49		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: B-22A@6-7

Lab Sample ID: 720-46736-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	36		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]pyrene	41		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[b]fluoranthene	51		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[g,h,i]perylene	33		25		ug/Kg	5		8270C SIM	Total/NA
Chrysene	81		25		ug/Kg	5		8270C SIM	Total/NA
Fluoranthene	70		25		ug/Kg	5		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	30		25		ug/Kg	5		8270C SIM	Total/NA
Phenanthrene	71		25		ug/Kg	5		8270C SIM	Total/NA
Pyrene	69		25		ug/Kg	5		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	290		150		mg/Kg	3		8015B	Silica Gel Cleanup

## Client Sample ID: B-23A@4-5

Lab Sample ID: 720-46736-5

No Detections

## Client Sample ID: B-23A@6-7

Lab Sample ID: 720-46736-6

No Detections

## Client Sample ID: B-20A@4-5

Lab Sample ID: 720-46736-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	12		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	15		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	16		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	10		5.0		ug/Kg	1		8270C SIM	Total/NA

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46736-1

## Client Sample ID: B-20A@4-5 (Continued)

Lab Sample ID: 720-46736-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	5.8		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	19		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	27		5.0		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	8.8		5.0		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	8.3		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	20		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	28		5.0		ug/Kg	1		8270C SIM	Total/NA

## Client Sample ID: B-20A@6-7

Lab Sample ID: 720-46736-8

No Detections

## Client Sample ID: B-20B@1-2

Lab Sample ID: 720-46736-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.4		4.0		mg/Kg	4		6010B	Total/NA
Vanadium	35		2.0		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B-20B@4-5

Lab Sample ID: 720-46736-10

No Detections

## Client Sample ID: B-20B@6-7

Lab Sample ID: 720-46736-11

No Detections

# Client Sample Results

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

TestAmerica Job ID: 720-46736-1

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

**Client Sample ID: B-22A@4-5**

**Date Collected: 12/17/12 10:03**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-3**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
Acenaphthylene	ND		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Anthracene</b>	<b>10</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Benzo[a]anthracene</b>	<b>36</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Benzo[a]pyrene</b>	<b>33</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Benzo[b]fluoranthene</b>	<b>51</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Benzo[g,h,i]perylene</b>	<b>28</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Benzo[k]fluoranthene</b>	<b>20</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Chrysene</b>	<b>65</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Dibenz(a,h)anthracene</b>	<b>11</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Fluoranthene</b>	<b>73</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
Fluorene	ND		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>27</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
Naphthalene	ND		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Phenanthrene</b>	<b>60</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
<b>Pyrene</b>	<b>63</b>		9.8		ug/Kg		12/18/12 16:20	12/20/12 02:11	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	62		33 - 120				12/18/12 16:20	12/20/12 02:11	2
Terphenyl-d14	70		35 - 146				12/18/12 16:20	12/20/12 02:11	2

**Client Sample ID: B-22A@6-7**

**Date Collected: 12/17/12 10:06**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-4**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Acenaphthylene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Anthracene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Benzo[a]anthracene</b>	<b>36</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Benzo[a]pyrene</b>	<b>41</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Benzo[b]fluoranthene</b>	<b>51</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Benzo[g,h,i]perylene</b>	<b>33</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Benzo[k]fluoranthene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Chrysene</b>	<b>81</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Dibenz(a,h)anthracene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Fluoranthene</b>	<b>70</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Fluorene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Indeno[1,2,3-cd]pyrene</b>	<b>30</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Naphthalene	ND		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Phenanthrene</b>	<b>71</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
<b>Pyrene</b>	<b>69</b>		25		ug/Kg		12/18/12 16:20	12/20/12 02:34	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		33 - 120				12/18/12 16:20	12/20/12 02:34	5
Terphenyl-d14	92		35 - 146				12/18/12 16:20	12/20/12 02:34	5

TestAmerica Pleasanton



# Client Sample Results

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

TestAmerica Job ID: 720-46736-1

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

**Client Sample ID: B-20A@4-5**  
**Date Collected: 12/17/12 12:24**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
Acenaphthylene	ND		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
Anthracene	ND		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Benzo[a]anthracene</b>	<b>12</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Benzo[a]pyrene</b>	<b>15</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Benzo[b]fluoranthene</b>	<b>16</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Benzo[g,h,i]perylene</b>	<b>10</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Benzo[k]fluoranthene</b>	<b>5.8</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Chrysene</b>	<b>19</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Fluoranthene</b>	<b>27</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
Fluorene	ND		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>8.8</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Naphthalene</b>	<b>8.3</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Phenanthrene</b>	<b>20</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
<b>Pyrene</b>	<b>28</b>		5.0		ug/Kg		12/18/12 16:20	12/19/12 21:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		33 - 120				12/18/12 16:20	12/19/12 21:59	1
Terphenyl-d14	77		35 - 146				12/18/12 16:20	12/19/12 21:59	1

**Client Sample ID: B-20A@6-7**  
**Date Collected: 12/17/12 12:28**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Acenaphthylene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Anthracene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Benzo[a]anthracene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Benzo[a]pyrene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Chrysene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Fluoranthene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Fluorene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Naphthalene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Phenanthrene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Pyrene	ND		4.9		ug/Kg		12/18/12 16:20	12/19/12 22:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	62		33 - 120				12/18/12 16:20	12/19/12 22:22	1
Terphenyl-d14	73		35 - 146				12/18/12 16:20	12/19/12 22:22	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46736-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-22B@4-5**

**Date Collected: 12/17/12 09:25**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-1**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/18/12 16:11	12/19/12 10:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1				12/18/12 16:11	12/19/12 10:42	1
p-Terphenyl	77		38 - 148				12/18/12 16:11	12/19/12 10:42	1

**Client Sample ID: B-22B@6-7**

**Date Collected: 12/17/12 09:27**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-2**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/18/12 16:11	12/19/12 11:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1				12/18/12 16:11	12/19/12 11:17	1
p-Terphenyl	78		38 - 148				12/18/12 16:11	12/19/12 11:17	1

**Client Sample ID: B-22A@4-5**

**Date Collected: 12/17/12 10:03**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-3**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	57		49		mg/Kg		12/18/12 16:11	12/19/12 15:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 1				12/18/12 16:11	12/19/12 15:30	1
p-Terphenyl	66		38 - 148				12/18/12 16:11	12/19/12 15:30	1

**Client Sample ID: B-22A@6-7**

**Date Collected: 12/17/12 10:06**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-4**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	290		150		mg/Kg		12/18/12 16:11	12/22/12 12:44	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.5		0 - 1				12/18/12 16:11	12/22/12 12:44	3
p-Terphenyl	95		38 - 148				12/18/12 16:11	12/22/12 12:44	3

**Client Sample ID: B-23A@4-5**

**Date Collected: 12/17/12 11:20**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-5**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/18/12 16:11	12/19/12 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.05		0 - 1				12/18/12 16:11	12/19/12 16:19	1
p-Terphenyl	81		38 - 148				12/18/12 16:11	12/19/12 16:19	1

**Client Sample ID: B-23A@6-7**

**Date Collected: 12/17/12 11:22**

**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-6**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/18/12 16:11	12/19/12 16:43	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46736-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.06		0 - 1	12/18/12 16:11	12/19/12 16:43	1
p-Terphenyl	95		38 - 148	12/18/12 16:11	12/19/12 16:43	1

**Client Sample ID: B-20A@4-5**  
**Date Collected: 12/17/12 12:24**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/18/12 16:11	12/19/12 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.0009		0 - 1	12/18/12 16:11	12/19/12 17:07	1
p-Terphenyl	89		38 - 148	12/18/12 16:11	12/19/12 17:07	1

**Client Sample ID: B-20A@6-7**  
**Date Collected: 12/17/12 12:28**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/18/12 16:11	12/19/12 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1	12/18/12 16:11	12/19/12 16:19	1
p-Terphenyl	104		38 - 148	12/18/12 16:11	12/19/12 16:19	1

**Client Sample ID: B-20B@4-5**  
**Date Collected: 12/17/12 13:12**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/18/12 16:11	12/19/12 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.009		0 - 1	12/18/12 16:11	12/19/12 16:43	1
p-Terphenyl	110		38 - 148	12/18/12 16:11	12/19/12 16:43	1

**Client Sample ID: B-20B@6-7**  
**Date Collected: 12/17/12 13:15**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/18/12 16:11	12/19/12 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 1	12/18/12 16:11	12/19/12 17:07	1
p-Terphenyl	103		38 - 148	12/18/12 16:11	12/19/12 17:07	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46736-1

## Method: 6010B - Metals (ICP)

Client Sample ID: B-20B@1-2  
Date Collected: 12/17/12 13:08  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46736-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		4.0		mg/Kg		12/18/12 18:15	12/21/12 00:27	4
Vanadium	35		2.0		mg/Kg		12/18/12 18:15	12/21/12 00:27	4

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# QC Sample Results

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

TestAmerica Job ID: 720-46736-1

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

Lab Sample ID: MB 720-127305/1-A

Matrix: Solid

Analysis Batch: 127475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127305

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Acenaphthylene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Anthracene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Chrysene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Fluoranthene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Fluorene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Naphthalene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Phenanthrene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1
Pyrene	ND		5.0		ug/Kg		12/18/12 11:27	12/20/12 16:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		33 - 120	12/18/12 11:27	12/20/12 16:27	1
Terphenyl-d14	73		35 - 146	12/18/12 11:27	12/20/12 16:27	1

Lab Sample ID: LCS 720-127305/2-A

Matrix: Solid

Analysis Batch: 127386

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127305

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	333	236		ug/Kg		71	49 - 120
Acenaphthylene	333	241		ug/Kg		72	52 - 120
Anthracene	333	263		ug/Kg		79	52 - 120
Benzo[a]anthracene	333	273		ug/Kg		82	52 - 120
Benzo[a]pyrene	333	257		ug/Kg		77	54 - 120
Benzo[b]fluoranthene	333	248		ug/Kg		74	51 - 120
Benzo[g,h,i]perylene	333	262		ug/Kg		79	48 - 120
Benzo[k]fluoranthene	333	285		ug/Kg		86	56 - 120
Chrysene	333	331		ug/Kg		99	40 - 120
Dibenz(a,h)anthracene	333	285		ug/Kg		86	50 - 120
Fluoranthene	333	257		ug/Kg		77	57 - 120
Fluorene	333	247		ug/Kg		74	52 - 120
Indeno[1,2,3-cd]pyrene	333	273		ug/Kg		82	48 - 120
Naphthalene	333	220		ug/Kg		66	46 - 120
Phenanthrene	333	244		ug/Kg		73	48 - 120
Pyrene	333	235		ug/Kg		71	53 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	70		33 - 120
Terphenyl-d14	79		35 - 146

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46736-1

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

Lab Sample ID: LCSD 720-127305/3-A

Matrix: Solid

Analysis Batch: 127386

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 127305

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Acenaphthene	333	242		ug/Kg		73	49 - 120	2	20
Acenaphthylene	333	248		ug/Kg		75	52 - 120	3	20
Anthracene	333	269		ug/Kg		81	52 - 120	2	20
Benzo[a]anthracene	333	265		ug/Kg		80	52 - 120	3	20
Benzo[a]pyrene	333	256		ug/Kg		77	54 - 120	0	20
Benzo[b]fluoranthene	333	254		ug/Kg		76	51 - 120	2	20
Benzo[g,h,i]perylene	333	261		ug/Kg		78	48 - 120	1	20
Benzo[k]fluoranthene	333	279		ug/Kg		84	56 - 120	2	20
Chrysene	333	329		ug/Kg		99	40 - 120	1	20
Dibenz(a,h)anthracene	333	282		ug/Kg		85	50 - 120	1	20
Fluoranthene	333	258		ug/Kg		78	57 - 120	1	20
Fluorene	333	255		ug/Kg		77	52 - 120	3	20
Indeno[1,2,3-cd]pyrene	333	270		ug/Kg		81	48 - 120	1	20
Naphthalene	333	224		ug/Kg		67	46 - 120	2	20
Phenanthrene	333	250		ug/Kg		75	48 - 120	3	20
Pyrene	333	237		ug/Kg		71	53 - 120	1	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	72		33 - 120
Terphenyl-d14	79		35 - 146

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

Lab Sample ID: MB 720-127339/1-A

Matrix: Solid

Analysis Batch: 127363

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 127339

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/18/12 16:11	12/19/12 12:31	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Capric Acid (Surr)	0		0 - 1	12/18/12 16:11	12/19/12 12:31	1
p-Terphenyl	102		38 - 148	12/18/12 16:11	12/19/12 12:31	1

Lab Sample ID: LCS 720-127339/2-A

Matrix: Solid

Analysis Batch: 127363

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 127339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.0	81.8		mg/Kg		99	36 - 112

Surrogate	LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl	94		38 - 148

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46736-1

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

**Lab Sample ID: LCSD 720-127339/3-A**  
**Matrix: Solid**  
**Analysis Batch: 127363**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127339**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	83.1	76.4		mg/Kg		92	36 - 112	7	35
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>						
<i>p-Terphenyl</i>		86							38 - 148

**Lab Sample ID: 720-46736-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 127363**

**Client Sample ID: B-22B@4-5**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127339**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	8.9		82.0	89.5		mg/Kg		98	50 - 150
<b>Surrogate</b>		<b>%Recovery</b>		<b>Qualifier</b>					
<i>p-Terphenyl</i>		81							38 - 148

**Lab Sample ID: 720-46736-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 127363**

**Client Sample ID: B-22B@4-5**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127339**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	8.9		82.8	90.6		mg/Kg		99	50 - 150	1	30
<b>Surrogate</b>		<b>%Recovery</b>		<b>Qualifier</b>							
<i>p-Terphenyl</i>		85									38 - 148

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-127349/1-A**  
**Matrix: Solid**  
**Analysis Batch: 127546**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 127349**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0		mg/Kg		12/18/12 18:15	12/20/12 23:31	1
Vanadium	ND		0.50		mg/Kg		12/18/12 18:15	12/20/12 23:31	1

**Lab Sample ID: LCS 720-127349/2-A**  
**Matrix: Solid**  
**Analysis Batch: 127546**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 127349**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	51.9		mg/Kg		104	80 - 120
Vanadium	50.0	52.9		mg/Kg		106	80 - 120

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46736-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 720-127349/3-A  
Matrix: Solid  
Analysis Batch: 127546

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 127349

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	51.8		mg/Kg		104	80 - 120	0	20
Vanadium	50.0	53.1		mg/Kg		106	80 - 120	0	20

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# QC Association Summary

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

TestAmerica Job ID: 720-46736-1

## GC/MS Semi VOA

### Prep Batch: 127305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-3	B-22A@4-5	Total/NA	Solid	3546	
720-46736-4	B-22A@6-7	Total/NA	Solid	3546	
720-46736-7	B-20A@4-5	Total/NA	Solid	3546	
720-46736-8	B-20A@6-7	Total/NA	Solid	3546	
LCS 720-127305/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-127305/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-127305/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 127386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-3	B-22A@4-5	Total/NA	Solid	8270C SIM	127305
720-46736-4	B-22A@6-7	Total/NA	Solid	8270C SIM	127305
720-46736-7	B-20A@4-5	Total/NA	Solid	8270C SIM	127305
720-46736-8	B-20A@6-7	Total/NA	Solid	8270C SIM	127305
LCS 720-127305/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	127305
LCSD 720-127305/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	127305

### Analysis Batch: 127475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-127305/1-A	Method Blank	Total/NA	Solid	8270C SIM	127305

## GC Semi VOA

### Prep Batch: 127339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-1	B-22B@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-1 MS	B-22B@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-1 MSD	B-22B@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-2	B-22B@6-7	Silica Gel Cleanup	Solid	3546	
720-46736-3	B-22A@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-4	B-22A@6-7	Silica Gel Cleanup	Solid	3546	
720-46736-5	B-23A@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-6	B-23A@6-7	Silica Gel Cleanup	Solid	3546	
720-46736-7	B-20A@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-8	B-20A@6-7	Silica Gel Cleanup	Solid	3546	
720-46736-10	B-20B@4-5	Silica Gel Cleanup	Solid	3546	
720-46736-11	B-20B@6-7	Silica Gel Cleanup	Solid	3546	
LCS 720-127339/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-127339/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-127339/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

### Analysis Batch: 127362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-8	B-20A@6-7	Silica Gel Cleanup	Solid	8015B	127339
720-46736-10	B-20B@4-5	Silica Gel Cleanup	Solid	8015B	127339
720-46736-11	B-20B@6-7	Silica Gel Cleanup	Solid	8015B	127339

### Analysis Batch: 127363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-1	B-22B@4-5	Silica Gel Cleanup	Solid	8015B	127339

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# QC Association Summary

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

TestAmerica Job ID: 720-46736-1

## GC Semi VOA (Continued)

### Analysis Batch: 127363 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-1 MS	B-22B@4-5	Silica Gel Cleanup	Solid	8015B	127339
720-46736-1 MSD	B-22B@4-5	Silica Gel Cleanup	Solid	8015B	127339
720-46736-2	B-22B@6-7	Silica Gel Cleanup	Solid	8015B	127339
720-46736-3	B-22A@4-5	Silica Gel Cleanup	Solid	8015B	127339
720-46736-5	B-23A@4-5	Silica Gel Cleanup	Solid	8015B	127339
720-46736-6	B-23A@6-7	Silica Gel Cleanup	Solid	8015B	127339
720-46736-7	B-20A@4-5	Silica Gel Cleanup	Solid	8015B	127339
LCS 720-127339/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	127339
LCSD 720-127339/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	127339
MB 720-127339/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	127339

### Analysis Batch: 127605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-4	B-22A@6-7	Silica Gel Cleanup	Solid	8015B	127339

## Metals

### Prep Batch: 127349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-9	B-20B@1-2	Total/NA	Solid	3050B	
LCS 720-127349/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-127349/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
MB 720-127349/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 127546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-9	B-20B@1-2	Total/NA	Solid	6010B	127349
LCS 720-127349/2-A	Lab Control Sample	Total/NA	Solid	6010B	127349
LCSD 720-127349/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	127349
MB 720-127349/1-A	Method Blank	Total/NA	Solid	6010B	127349

# Lab Chronicle

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

TestAmerica Job ID: 720-46736-1

## Client Sample ID: B-22B@4-5

Lab Sample ID: 720-46736-1

Date Collected: 12/17/12 09:25

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127363	12/19/12 10:42	JZ	TAL SF

## Client Sample ID: B-22B@6-7

Lab Sample ID: 720-46736-2

Date Collected: 12/17/12 09:27

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127363	12/19/12 11:17	JZ	TAL SF

## Client Sample ID: B-22A@4-5

Lab Sample ID: 720-46736-3

Date Collected: 12/17/12 10:03

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127305	12/18/12 16:20	AM	TAL SF
Total/NA	Analysis	8270C SIM		2	127386	12/20/12 02:11	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127363	12/19/12 15:30	JZ	TAL SF

## Client Sample ID: B-22A@6-7

Lab Sample ID: 720-46736-4

Date Collected: 12/17/12 10:06

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127305	12/18/12 16:20	AM	TAL SF
Total/NA	Analysis	8270C SIM		5	127386	12/20/12 02:34	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		3	127605	12/22/12 12:44	DH	TAL SF

## Client Sample ID: B-23A@4-5

Lab Sample ID: 720-46736-5

Date Collected: 12/17/12 11:20

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127363	12/19/12 16:19	JZ	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46736-1

**Client Sample ID: B-23A@6-7**

**Lab Sample ID: 720-46736-6**

Date Collected: 12/17/12 11:22

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127363	12/19/12 16:43	JZ	TAL SF

**Client Sample ID: B-20A@4-5**

**Lab Sample ID: 720-46736-7**

Date Collected: 12/17/12 12:24

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127305	12/18/12 16:20	AM	TAL SF
Total/NA	Analysis	8270C SIM		1	127386	12/19/12 21:59	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127363	12/19/12 17:07	JZ	TAL SF

**Client Sample ID: B-20A@6-7**

**Lab Sample ID: 720-46736-8**

Date Collected: 12/17/12 12:28

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127305	12/18/12 16:20	AM	TAL SF
Total/NA	Analysis	8270C SIM		1	127386	12/19/12 22:22	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127362	12/19/12 16:19	DH	TAL SF

**Client Sample ID: B-20B@1-2**

**Lab Sample ID: 720-46736-9**

Date Collected: 12/17/12 13:08

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			127349	12/18/12 18:15	ASB	TAL SF
Total/NA	Analysis	6010B		4	127546	12/21/12 00:27	CAM	TAL SF

**Client Sample ID: B-20B@4-5**

**Lab Sample ID: 720-46736-10**

Date Collected: 12/17/12 13:12

Matrix: Solid

Date Received: 12/17/12 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127362	12/19/12 16:43	DH	TAL SF

# Lab Chronicle

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

TestAmerica Job ID: 720-46736-1

**Client Sample ID: B-20B@6-7**

**Lab Sample ID: 720-46736-11**

**Date Collected: 12/17/12 13:15**

**Matrix: Solid**

**Date Received: 12/17/12 17:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127339	12/18/12 16:11	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127362	12/19/12 17:07	DH	TAL SF

**Laboratory References:**

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

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# Certification Summary

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

TestAmerica Job ID: 720-46736-1

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46736-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF

**Protocol References:**

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

**Laboratory References:**

TAL SF = 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: 720-46736-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46736-1	B-22B@4-5	Solid	12/17/12 09:25	12/17/12 17:30
720-46736-2	B-22B@6-7	Solid	12/17/12 09:27	12/17/12 17:30
720-46736-3	B-22A@4-5	Solid	12/17/12 10:03	12/17/12 17:30
720-46736-4	B-22A@6-7	Solid	12/17/12 10:06	12/17/12 17:30
720-46736-5	B-23A@4-5	Solid	12/17/12 11:20	12/17/12 17:30
720-46736-6	B-23A@6-7	Solid	12/17/12 11:22	12/17/12 17:30
720-46736-7	B-20A@4-5	Solid	12/17/12 12:24	12/17/12 17:30
720-46736-8	B-20A@6-7	Solid	12/17/12 12:28	12/17/12 17:30
720-46736-9	B-20B@1-2	Solid	12/17/12 13:08	12/17/12 17:30
720-46736-10	B-20B@4-5	Solid	12/17/12 13:12	12/17/12 17:30
720-46736-11	B-20B@6-7	Solid	12/17/12 13:15	12/17/12 17:30





Regulatory Program:  DW  NPDES  RCRA  Other:

143025

Client Contact Your Company Name here <b>Ninyo &amp; Moore</b>		Project Manager: <b>Melissa Terry</b>		Site Contact:		Date:		COC No:	
Address <b>1956 Webster St. # 400</b>		Tel/Fax: <b>510.343.3000</b>		Lab Contact:		Carrier:		of COCs	
City/State/Zip <b>Oakland CA 94612</b>		Analysis Turnaround Time		Filtered Sample (Y/N) Composite = C / Grab = G TPH-ho PAHs Arsenic and Vanadium Title 22 Metals				For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sampler:	
(xxx) xxx-xxxx <b>510.343.3000</b> Phone		Calendar (C) or Work Days (W)							
(xxx) xxx-xxxx <b>.3001</b> FAX		TAT if different from Below _____							
Project Name: <b>Western Forge Flange</b>		<input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> <b>1 week</b> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Site: <b>540 Cleveland Avenue</b>		P O # <b>401823001</b>						Sample Specific Notes:	

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Composite = C / Grab = G	TPH-ho	PAHs	Arsenic and Vanadium	Title 22 Metals
B-22B@4-5	12/17/12	0925		Soil				X	X	X	X
B-22B@6-7		0927						X	X	X	X
B-22A@4-5		1003						X	X	X	X
B-22A@6-7		1006						X	X	X	X
B-23A@4-5		1120						X	X	X	X
B-23A@6-7		1122						X	X	X	X
B-20A@4-5		1224						X	X	X	X
B-20A@6-7		1228						X	X	X	X
B-20B@1-2		1308						X	X	X	X
B-20B@4-5		1312						X	X	X	X
B-20B@6-7		1315						X	X	X	X

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:  
 TPH as hydraulic oil by 8015M w/silica gel cleanup  
 PAHs by 8270  
 Title 22 Metals by 6010B  
 Arsenic and Vanadium by 6010B  
 3.8, 4.2°C

Relinquished by: <b>Melissa Terry</b>	Company: <b>Ninyo &amp; Moore</b>	Date/Time: <b>12/17/12</b>	Received by: <b>[Signature]</b>	Company: <b>TBSF</b>	Date/Time: <b>12.17.12 1540</b>
Relinquished by: <b>[Signature]</b>	Company: <b>TBSF</b>	Date/Time: <b>12-17-12 1730</b>	Received by: <b>[Signature]</b>	Company: <b>TBSF</b>	Date/Time: <b>12/17/12 1730</b>

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46736-1

**Login Number: 46736**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Apostol, Anita**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# 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: 720-46736-2

Client Project/Site: Western Forge & Flange

For:

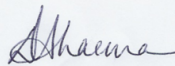
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/22/2013 2:42:42 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46736-2

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46736-2

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**Job ID: 720-46736-2**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46736-2

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/17/2012 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 4.2° C.

**Metals**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46736-2

Client Sample ID: B-22A@4-5

Lab Sample ID: 720-46736-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	380		1.9		mg/Kg	4		6010B	Total/NA
Beryllium	0.42		0.38		mg/Kg	4		6010B	Total/NA
Chromium	27		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	5.2		0.75		mg/Kg	4		6010B	Total/NA
Copper	19		5.7		mg/Kg	4		6010B	Total/NA
Lead	67		1.9		mg/Kg	4		6010B	Total/NA
Nickel	19		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	24		1.9		mg/Kg	4		6010B	Total/NA
Zinc	86		5.7		mg/Kg	4		6010B	Total/NA
Mercury	2.8		0.044		mg/Kg	5		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46736-2

## Method: 6010B - Metals (ICP)

**Client Sample ID: B-22A@4-5**  
**Date Collected: 12/17/12 10:03**  
**Date Received: 12/17/12 17:30**

**Lab Sample ID: 720-46736-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
Arsenic	ND		3.8		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Barium</b>	<b>380</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Beryllium</b>	<b>0.42</b>		0.38		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
Cadmium	ND		0.47		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Chromium</b>	<b>27</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Cobalt</b>	<b>5.2</b>		0.75		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Copper</b>	<b>19</b>		5.7		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Lead</b>	<b>67</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
Molybdenum	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Nickel</b>	<b>19</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
Selenium	ND		3.8		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
Silver	ND		0.94		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
Thallium	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Vanadium</b>	<b>24</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:44	4
<b>Zinc</b>	<b>86</b>		5.7		mg/Kg		01/18/13 15:48	01/21/13 22:44	4



# Client Sample Results

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

TestAmerica Job ID: 720-46736-2

## Method: 7471A - Mercury (CVAA)

Client Sample ID: B-22A@4-5  
Date Collected: 12/17/12 10:03  
Date Received: 12/17/12 17:30

Lab Sample ID: 720-46736-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.8		0.044		mg/Kg		01/17/13 22:07	01/18/13 18:40	5

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# QC Sample Results

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

TestAmerica Job ID: 720-46736-2

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-129026/1-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Arsenic	ND		1.0		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Barium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Beryllium	ND		0.10		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Cadmium	ND		0.13		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Chromium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Cobalt	ND		0.20		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Copper	ND		1.5		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Lead	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Molybdenum	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Nickel	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Selenium	ND		1.0		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Silver	ND		0.25		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Thallium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Vanadium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Zinc	ND		1.5		mg/Kg		01/18/13 15:48	01/21/13 21:47	1

**Lab Sample ID: LCS 720-129026/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	50.0	49.9		mg/Kg		100	80 - 120	
Arsenic	50.0	49.4		mg/Kg		99	80 - 120	
Barium	50.0	50.2		mg/Kg		100	80 - 120	
Beryllium	50.0	49.8		mg/Kg		100	80 - 120	
Cadmium	50.0	49.1		mg/Kg		98	80 - 120	
Chromium	50.0	49.3		mg/Kg		99	80 - 120	
Cobalt	50.0	51.1		mg/Kg		102	80 - 120	
Copper	50.0	49.8		mg/Kg		100	80 - 120	
Lead	50.0	50.6		mg/Kg		101	80 - 120	
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120	
Nickel	50.0	50.1		mg/Kg		100	80 - 120	
Selenium	50.0	48.7		mg/Kg		97	80 - 120	
Silver	25.0	25.2		mg/Kg		101	80 - 120	
Thallium	50.0	50.5		mg/Kg		101	80 - 120	
Vanadium	50.0	49.7		mg/Kg		99	80 - 120	
Zinc	50.0	50.0		mg/Kg		100	80 - 120	

**Lab Sample ID: LCSD 720-129026/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Antimony	50.0	49.7		mg/Kg		99	80 - 120	0	20	
Arsenic	50.0	49.5		mg/Kg		99	80 - 120	0	20	
Barium	50.0	50.4		mg/Kg		101	80 - 120	0	20	
Beryllium	50.0	50.0		mg/Kg		100	80 - 120	0	20	

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46736-2

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 720-129026/3-A**

**Matrix: Solid**

**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 129026**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
							Limits	RPD	Limit
Cadmium	50.0	49.2		mg/Kg		98	80 - 120	0	20
Chromium	50.0	49.6		mg/Kg		99	80 - 120	1	20
Cobalt	50.0	51.1		mg/Kg		102	80 - 120	0	20
Copper	50.0	50.2		mg/Kg		100	80 - 120	1	20
Lead	50.0	50.7		mg/Kg		101	80 - 120	0	20
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120	0	20
Nickel	50.0	50.2		mg/Kg		100	80 - 120	0	20
Selenium	50.0	48.8		mg/Kg		98	80 - 120	0	20
Silver	25.0	25.4		mg/Kg		101	80 - 120	1	20
Thallium	50.0	50.7		mg/Kg		101	80 - 120	0	20
Vanadium	50.0	49.9		mg/Kg		100	80 - 120	0	20
Zinc	50.0	49.9		mg/Kg		100	80 - 120	0	20

**Lab Sample ID: LCSSRM 720-129026/25-A**

**Matrix: Solid**

**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 129026**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	RPD
							Limits	RPD
Antimony	76.3	43.8		mg/Kg		57	11 - 101	
Arsenic	84.1	81.0		mg/Kg		96	69 - 119	
Barium	517	501		mg/Kg		97	61 - 117	
Beryllium	153	141		mg/Kg		92	56 - 102	
Cadmium	42.0	37.8		mg/Kg		90	67 - 118	
Chromium	269	247		mg/Kg		92	67 - 121	
Cobalt	323	326		mg/Kg		101	64 - 133	
Copper	263	248		mg/Kg		94	68 - 126	
Lead	280	267		mg/Kg		95	62 - 113	
Molybdenum	215	208		mg/Kg		97	62 - 128	
Nickel	106	98.1		mg/Kg		93	65 - 117	
Selenium	138	129		mg/Kg		94	63 - 126	
Silver	50.4	53.4		mg/Kg		106	51 - 130	
Thallium	331	314		mg/Kg		95	64 - 124	
Vanadium	142	138		mg/Kg		97	67 - 123	
Zinc	574	555		mg/Kg		97	62 - 110	

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 720-128950/1-A**

**Matrix: Solid**

**Analysis Batch: 129034**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 128950**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.010		mg/Kg		01/17/13 22:07	01/18/13 17:25	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46736-2

## Method: 7471A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 720-128950/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129034**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 128950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.850		mg/Kg		102	80 - 120

**Lab Sample ID: LCSD 720-128950/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129034**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 128950**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.858		mg/Kg		103	80 - 120	1	20



# QC Association Summary

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

TestAmerica Job ID: 720-46736-2

## Metals

### Prep Batch: 128950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-3	B-22A@4-5	Total/NA	Solid	7471A	
LCS 720-128950/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-128950/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-128950/1-A	Method Blank	Total/NA	Solid	7471A	

### Prep Batch: 129026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-3	B-22A@4-5	Total/NA	Solid	3050B	
LCS 720-129026/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-129026/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-129026/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-129026/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 129034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-3	B-22A@4-5	Total/NA	Solid	7471A	128950
LCS 720-128950/2-A	Lab Control Sample	Total/NA	Solid	7471A	128950
LCSD 720-128950/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	128950
MB 720-128950/1-A	Method Blank	Total/NA	Solid	7471A	128950

### Analysis Batch: 129143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46736-3	B-22A@4-5	Total/NA	Solid	6010B	129026
LCS 720-129026/2-A	Lab Control Sample	Total/NA	Solid	6010B	129026
LCSD 720-129026/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	129026
LCSSRM 720-129026/25-A	Lab Control Sample	Total/NA	Solid	6010B	129026
MB 720-129026/1-A	Method Blank	Total/NA	Solid	6010B	129026

# Lab Chronicle

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

TestAmerica Job ID: 720-46736-2

**Client Sample ID: B-22A@4-5**

**Lab Sample ID: 720-46736-3**

**Date Collected: 12/17/12 10:03**

**Matrix: Solid**

**Date Received: 12/17/12 17:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		5	129034	01/18/13 18:40	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 22:44	SK	TAL SF

**Laboratory References:**

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

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# Certification Summary

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

TestAmerica Job ID: 720-46736-2

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46736-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF

**Protocol References:**

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

**Laboratory References:**

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

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# Sample Summary

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

TestAmerica Job ID: 720-46736-2

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46736-3	B-22A@4-5	Solid	12/17/12 10:03	12/17/12 17:30

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Sharma, Dimple

720-46754-2

From: Kris Larson [klarson@ninyoandmoore.com]
Sent: Thursday, January 17, 2013 11:30 AM
To: Sharma, Dimple
Cc: Melissa Terry

720-46736-2

Subject: RE: Additional metals analysis for Western Forge & Flange

Dimple,
Also please analyze Title 22 Metals in sample B8C@4-5.
Thanks,

Kris M. Larson, P.G.
Principal Geologist
Ninyo & Moore
Geotechnical & Environmental Sciences Consultants
1956 Webster Street, Suite 400
Oakland, California 94612
(510) 343-3000 (x5212)
(510) 343-3001 (Fax)
(510) 301-9446 (Cell)
klarson@ninyoandmoore.com

New San Jose office
2149 O'Toole Avenue, Suite 10
San Jose, CA 95131
(408) 435-9000
(408) 435-9006 (Fax)

Experience · Quality · Commitment

-----Original Message-----

From: Kris Larson
Sent: Thursday, January 17, 2013 10:49 AM
To: 'dimple.sharma@testamericainc.com'
Cc: Melissa Terry
Subject: Additional metals analysis for Western Forge & Flange

Dimple,
Please analyze the following samples from your lab reports dated 12/24 to 12/27 for Title 22 Metals using EPA Method 6010B using a normal 5-7 day TAT.

- B22A@4-5
B10A@0.5-1
B15C@1
B9A@7-8
B12A@4-5
B15A@4-5
B5A@4-5
B24A@4-5

Thanks,

Kris M. Larson, P.G.

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46736-2

**Login Number: 46736**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Apostol, Anita**

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	

# 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: 720-46754-1

Client Project/Site: Western Forge & Flange

For:

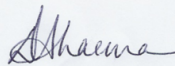
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

12/26/2012 4:17:35 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

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

TestAmerica Job ID: 720-46754-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

### GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

## 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46754-1

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**Job ID: 720-46754-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46754-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/18/2012 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 1.7° C.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

Method 8015B: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: B-8C@4-5 (720-46754-6).

No other analytical or quality issues were noted.

**Metals**

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: 720-46754-1

## Client Sample ID: B-21A@4-5

Lab Sample ID: 720-46754-1

No Detections

## Client Sample ID: B-21A@6-7

Lab Sample ID: 720-46754-2

No Detections

## Client Sample ID: B-9A@7-8

Lab Sample ID: 720-46754-3

No Detections

## Client Sample ID: B-12A@4-5

Lab Sample ID: 720-46754-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	210		150		mg/Kg	3		8015B	Silica Gel Cleanup

## Client Sample ID: B-12A@6-7

Lab Sample ID: 720-46754-5

No Detections

## Client Sample ID: B-8C@4-5

Lab Sample ID: 720-46754-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	1800		25		ug/Kg	5		8270C SIM	Total/NA
Anthracene	1800		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]anthracene	3100		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]pyrene	3800		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[b]fluoranthene	4500		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[g,h,i]perylene	1500		25		ug/Kg	5		8270C SIM	Total/NA
Chrysene	5100		250		ug/Kg	50		8270C SIM	Total/NA
Dibenz(a,h)anthracene	790		25		ug/Kg	5		8270C SIM	Total/NA
Fluoranthene	9300		250		ug/Kg	50		8270C SIM	Total/NA
Fluorene	1400		25		ug/Kg	5		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	1500		25		ug/Kg	5		8270C SIM	Total/NA
Naphthalene	1200		25		ug/Kg	5		8270C SIM	Total/NA
Phenanthrene	7900		250		ug/Kg	50		8270C SIM	Total/NA
Pyrene	6600		250		ug/Kg	50		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	4300		2500		mg/Kg	50		8015B	Silica Gel Cleanup

## Client Sample ID: B-8C@6-7

Lab Sample ID: 720-46754-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	160		25		ug/Kg	5		8270C SIM	Total/NA
Anthracene	340		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]anthracene	700		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]pyrene	440		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[b]fluoranthene	540		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[g,h,i]perylene	210		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[k]fluoranthene	250		25		ug/Kg	5		8270C SIM	Total/NA
Chrysene	780		25		ug/Kg	5		8270C SIM	Total/NA
Dibenz(a,h)anthracene	70		25		ug/Kg	5		8270C SIM	Total/NA
Fluoranthene	1500		25		ug/Kg	5		8270C SIM	Total/NA
Fluorene	110		25		ug/Kg	5		8270C SIM	Total/NA

TestAmerica Pleasanton



# Detection Summary

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-8C@6-7 (Continued)

Lab Sample ID: 720-46754-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	200		25		ug/Kg	5		8270C SIM	Total/NA
Naphthalene	160		25		ug/Kg	5		8270C SIM	Total/NA
Phenanthrene	1100		25		ug/Kg	5		8270C SIM	Total/NA
Pyrene	990		25		ug/Kg	5		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	110		100		mg/Kg	2		8015B	Silica Gel Cleanup

## Client Sample ID: B-10A@0.5-1

Lab Sample ID: 720-46754-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	14		3.7		mg/Kg	4		6010B	Total/NA
Vanadium	35		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B-10A@6-7

Lab Sample ID: 720-46754-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	10		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]anthracene	26		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	32		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[b]fluoranthene	43		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[g,h,i]perylene	25		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	14		10		ug/Kg	2		8270C SIM	Total/NA
Chrysene	53		10		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	83		10		ug/Kg	2		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	23		10		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	85		10		ug/Kg	2		8270C SIM	Total/NA
Pyrene	70		10		ug/Kg	2		8270C SIM	Total/NA

## Client Sample ID: B-17A@4-5

Lab Sample ID: 720-46754-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	16		10		ug/Kg	2		8270C SIM	Total/NA
Anthracene	12		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]anthracene	36		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	41		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[b]fluoranthene	36		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[g,h,i]perylene	27		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	43		10		ug/Kg	2		8270C SIM	Total/NA
Chrysene	64	B	10		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	69		10		ug/Kg	2		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	24		10		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	88		10		ug/Kg	2		8270C SIM	Total/NA
Pyrene	85		10		ug/Kg	2		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	160		50		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: B-17A@6-7

Lab Sample ID: 720-46754-12

No Detections

## Client Sample ID: B-14A@4-5

Lab Sample ID: 720-46754-13

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-14A@4-5 (Continued)

Lab Sample ID: 720-46754-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	11		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	12		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[b]fluoranthene	14		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	12		9.9		ug/Kg	2		8270C SIM	Total/NA
Chrysene	21	B	9.9		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	24		9.9		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	25		9.9		ug/Kg	2		8270C SIM	Total/NA
Pyrene	34		9.9		ug/Kg	2		8270C SIM	Total/NA

## Client Sample ID: B-14A@6-7

Lab Sample ID: 720-46754-14

No Detections

## Client Sample ID: B-15C@1

Lab Sample ID: 720-46754-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	24		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B-15C@4-5

Lab Sample ID: 720-46754-16

No Detections

## Client Sample ID: B-15C@6-7

Lab Sample ID: 720-46754-17

No Detections

## Client Sample ID: B-15B@4-5

Lab Sample ID: 720-46754-18

No Detections

## Client Sample ID: B-15B@6-7

Lab Sample ID: 720-46754-19

No Detections

## Client Sample ID: B-15A@4-5

Lab Sample ID: 720-46754-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	5.2		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	6.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	5.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	8.9		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	9.8		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	7.5		5.0		ug/Kg	1		8270C SIM	Total/NA

## Client Sample ID: B-15A@6-7

Lab Sample ID: 720-46754-21

No Detections

## Client Sample ID: B-5A@4-5

Lab Sample ID: 720-46754-22

No Detections

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46754-1

**Client Sample ID: B-5A@6-7**

**Lab Sample ID: 720-46754-23**

No Detections

**Client Sample ID: UG-2@0.5-1**

**Lab Sample ID: 720-46754-24**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.6		3.6		mg/Kg	4		6010B	Total/NA
Vanadium	31		1.8		mg/Kg	4		6010B	Total/NA

**Client Sample ID: UG-1@0.5-1**

**Lab Sample ID: 720-46754-25**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.9		3.8		mg/Kg	4		6010B	Total/NA
Vanadium	35		1.9		mg/Kg	4		6010B	Total/NA

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Client Sample ID: B-8C@4-5**  
**Date Collected: 12/18/12 08:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1800		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Acenaphthylene	ND		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Anthracene	1800		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Benzo[a]anthracene	3100		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Benzo[a]pyrene	3800		250		ug/Kg		12/19/12 08:35	12/21/12 20:31	50
Benzo[b]fluoranthene	4500		250		ug/Kg		12/19/12 08:35	12/21/12 20:31	50
Benzo[g,h,i]perylene	1500		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Benzo[k]fluoranthene	ND		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Chrysene	5100		250		ug/Kg		12/19/12 08:35	12/21/12 20:31	50
Dibenz(a,h)anthracene	790		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Fluoranthene	9300		250		ug/Kg		12/19/12 08:35	12/21/12 20:31	50
Fluorene	1400		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Indeno[1,2,3-cd]pyrene	1500		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Naphthalene	1200		25		ug/Kg		12/19/12 08:35	12/20/12 21:03	5
Phenanthrene	7900		250		ug/Kg		12/19/12 08:35	12/21/12 20:31	50
Pyrene	6600		250		ug/Kg		12/19/12 08:35	12/21/12 20:31	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	72		33 - 120				12/19/12 08:35	12/20/12 21:03	5
2-Fluorobiphenyl	71		33 - 120				12/19/12 08:35	12/21/12 20:31	50
Terphenyl-d14	64		35 - 146				12/19/12 08:35	12/20/12 21:03	5
Terphenyl-d14	89		35 - 146				12/19/12 08:35	12/21/12 20:31	50

**Client Sample ID: B-8C@6-7**  
**Date Collected: 12/18/12 08:55**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	160		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Acenaphthylene	ND		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Anthracene	340		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Benzo[a]anthracene	700		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Benzo[a]pyrene	440		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Benzo[b]fluoranthene	540		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Benzo[g,h,i]perylene	210		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Benzo[k]fluoranthene	250		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Chrysene	780		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Dibenz(a,h)anthracene	70		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Fluoranthene	1500		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Fluorene	110		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Indeno[1,2,3-cd]pyrene	200		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Naphthalene	160		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Phenanthrene	1100		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
Pyrene	990		25		ug/Kg		12/19/12 08:35	12/20/12 18:46	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	76		33 - 120				12/19/12 08:35	12/20/12 18:46	5
Terphenyl-d14	85		35 - 146				12/19/12 08:35	12/20/12 18:46	5

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Client Sample ID: B-10A@6-7**  
**Date Collected: 12/18/12 09:18**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Acenaphthylene</b>	<b>10</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
Anthracene	ND		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Benzo[a]anthracene</b>	<b>26</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Benzo[a]pyrene</b>	<b>32</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Benzo[b]fluoranthene</b>	<b>43</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Benzo[g,h,i]perylene</b>	<b>25</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Benzo[k]fluoranthene</b>	<b>14</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Chrysene</b>	<b>53</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
Dibenz(a,h)anthracene	ND		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Fluoranthene</b>	<b>83</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
Fluorene	ND		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>23</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
Naphthalene	ND		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Phenanthrene</b>	<b>85</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Pyrene</b>	<b>70</b>		10		ug/Kg		12/19/12 08:35	12/21/12 20:55	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	66		33 - 120				12/19/12 08:35	12/21/12 20:55	2
Terphenyl-d14	69		35 - 146				12/19/12 08:35	12/21/12 20:55	2

**Client Sample ID: B-17A@4-5**  
**Date Collected: 12/18/12 10:03**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Acenaphthylene</b>	<b>16</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Anthracene</b>	<b>12</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Benzo[a]anthracene</b>	<b>36</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Benzo[a]pyrene</b>	<b>41</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Benzo[b]fluoranthene</b>	<b>36</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Benzo[g,h,i]perylene</b>	<b>27</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Benzo[k]fluoranthene</b>	<b>43</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Chrysene</b>	<b>64 B</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
Dibenz(a,h)anthracene	ND		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Fluoranthene</b>	<b>69</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
Fluorene	ND		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>24</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
Naphthalene	ND		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Phenanthrene</b>	<b>88</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Pyrene</b>	<b>85</b>		10		ug/Kg		12/19/12 08:35	12/20/12 21:44	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	76		33 - 120				12/19/12 08:35	12/20/12 21:44	2
Terphenyl-d14	66		35 - 146				12/19/12 08:35	12/20/12 21:44	2

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Client Sample ID: B-17A@6-7**  
**Date Collected: 12/18/12 10:06**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Acenaphthylene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Chrysene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Fluorene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Naphthalene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Phenanthrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		33 - 120				12/19/12 08:35	12/19/12 23:08	1
Terphenyl-d14	84		35 - 146				12/19/12 08:35	12/19/12 23:08	1

**Client Sample ID: B-14A@4-5**  
**Date Collected: 12/18/12 11:40**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Acenaphthylene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Anthracene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Benzo[a]anthracene</b>	<b>11</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Benzo[a]pyrene</b>	<b>12</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Benzo[b]fluoranthene</b>	<b>14</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Benzo[g,h,i]perylene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Benzo[k]fluoranthene</b>	<b>12</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Chrysene</b>	<b>21 B</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Dibenz(a,h)anthracene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Fluoranthene</b>	<b>24</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Fluorene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Indeno[1,2,3-cd]pyrene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Naphthalene	ND		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Phenanthrene</b>	<b>25</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
<b>Pyrene</b>	<b>34</b>		9.9		ug/Kg		12/19/12 08:35	12/20/12 22:05	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		33 - 120				12/19/12 08:35	12/20/12 22:05	2
Terphenyl-d14	81		35 - 146				12/19/12 08:35	12/20/12 22:05	2

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Client Sample ID: B-14A@6-7**  
**Date Collected: 12/18/12 11:45**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Acenaphthylene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Chrysene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Fluorene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Naphthalene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Phenanthrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	66		33 - 120				12/19/12 08:35	12/19/12 23:31	1
Terphenyl-d14	79		35 - 146				12/19/12 08:35	12/19/12 23:31	1

**Client Sample ID: B-15A@4-5**  
**Date Collected: 12/18/12 13:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Acenaphthylene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
<b>Benzo[a]pyrene</b>	<b>5.2</b>		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
<b>Benzo[b]fluoranthene</b>	<b>6.1</b>		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
<b>Chrysene</b>	<b>5.1</b>		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
<b>Fluoranthene</b>	<b>8.9</b>		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Fluorene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Naphthalene	ND		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
<b>Phenanthrene</b>	<b>9.8</b>		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
<b>Pyrene</b>	<b>7.5</b>		5.0		ug/Kg		12/19/12 08:35	12/19/12 23:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		33 - 120				12/19/12 08:35	12/19/12 23:54	1
Terphenyl-d14	71		35 - 146				12/19/12 08:35	12/19/12 23:54	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Client Sample ID: B-15A@6-7**  
**Date Collected: 12/18/12 13:15**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Acenaphthylene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Chrysene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Fluoranthene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Fluorene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Naphthalene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Phenanthrene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Pyrene	ND		5.0		ug/Kg		12/19/12 08:35	12/20/12 00:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		33 - 120				12/19/12 08:35	12/20/12 00:17	1
Terphenyl-d14	85		35 - 146				12/19/12 08:35	12/20/12 00:17	1



# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-21A@4-5**

**Date Collected: 12/17/12 13:40**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-1**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/21/12 12:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.4		0 - 1				12/19/12 15:47	12/21/12 12:20	1
p-Terphenyl	86		38 - 148				12/19/12 15:47	12/21/12 12:20	1

**Client Sample ID: B-21A@6-7**

**Date Collected: 12/17/12 13:45**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-2**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/19/12 15:47	12/21/12 16:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				12/19/12 15:47	12/21/12 16:44	1
p-Terphenyl	82		38 - 148				12/19/12 15:47	12/21/12 16:44	1

**Client Sample ID: B-9A@7-8**

**Date Collected: 12/17/12 15:05**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-3**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/21/12 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				12/19/12 15:47	12/21/12 17:13	1
p-Terphenyl	74		38 - 148				12/19/12 15:47	12/21/12 17:13	1

**Client Sample ID: B-12A@4-5**

**Date Collected: 12/17/12 15:45**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-4**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH-Hydraulic Oil Range (C19-C36)</b>	<b>210</b>		150		mg/Kg		12/19/12 15:47	12/22/12 22:12	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.5		0 - 1				12/19/12 15:47	12/22/12 22:12	3
p-Terphenyl	121		38 - 148				12/19/12 15:47	12/22/12 22:12	3

**Client Sample ID: B-12A@6-7**

**Date Collected: 12/17/12 15:50**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-5**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/19/12 15:47	12/22/12 22:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				12/19/12 15:47	12/22/12 22:41	1
p-Terphenyl	94		38 - 148				12/19/12 15:47	12/22/12 22:41	1

**Client Sample ID: B-8C@4-5**

**Date Collected: 12/18/12 08:50**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-6**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH-Hydraulic Oil Range (C19-C36)</b>	<b>4300</b>		2500		mg/Kg		12/19/12 15:47	12/22/12 21:43	50

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	12/19/12 15:47	12/22/12 21:43	50
p-Terphenyl	0	X D	38 - 148	12/19/12 15:47	12/22/12 21:43	50

**Client Sample ID: B-8C@6-7**  
**Date Collected: 12/18/12 08:55**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	110		100		mg/Kg		12/19/12 15:47	12/24/12 14:38	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.05		0 - 1	12/19/12 15:47	12/24/12 14:38	2
p-Terphenyl	92		38 - 148	12/19/12 15:47	12/24/12 14:38	2

**Client Sample ID: B-10A@6-7**  
**Date Collected: 12/18/12 09:18**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/21/12 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 1	12/19/12 15:47	12/21/12 19:40	1
p-Terphenyl	84		38 - 148	12/19/12 15:47	12/21/12 19:40	1

**Client Sample ID: B-17A@4-5**  
**Date Collected: 12/18/12 10:03**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	160		50		mg/Kg		12/19/12 15:47	12/21/12 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 1	12/19/12 15:47	12/21/12 20:09	1
p-Terphenyl	85		38 - 148	12/19/12 15:47	12/21/12 20:09	1

**Client Sample ID: B-17A@6-7**  
**Date Collected: 12/18/12 10:06**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/21/12 20:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1	12/19/12 15:47	12/21/12 20:39	1
p-Terphenyl	98		38 - 148	12/19/12 15:47	12/21/12 20:39	1

**Client Sample ID: B-14A@4-5**  
**Date Collected: 12/18/12 11:40**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/21/12 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.07		0 - 1	12/19/12 15:47	12/21/12 21:08	1
p-Terphenyl	86		38 - 148	12/19/12 15:47	12/21/12 21:08	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-14A@6-7**

**Date Collected: 12/18/12 11:45**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-14**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 00:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				12/19/12 15:47	12/22/12 00:33	1
p-Terphenyl	100		38 - 148				12/19/12 15:47	12/22/12 00:33	1

**Client Sample ID: B-15C@4-5**

**Date Collected: 12/18/12 12:15**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-16**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/19/12 15:47	12/22/12 01:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 1				12/19/12 15:47	12/22/12 01:03	1
p-Terphenyl	101		38 - 148				12/19/12 15:47	12/22/12 01:03	1

**Client Sample ID: B-15C@6-7**

**Date Collected: 12/18/12 12:20**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-17**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.08		0 - 1				12/19/12 15:47	12/22/12 01:32	1
p-Terphenyl	101		38 - 148				12/19/12 15:47	12/22/12 01:32	1

**Client Sample ID: B-15B@4-5**

**Date Collected: 12/18/12 12:52**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-18**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 02:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1				12/19/12 15:47	12/22/12 02:01	1
p-Terphenyl	101		38 - 148				12/19/12 15:47	12/22/12 02:01	1

**Client Sample ID: B-15B@6-7**

**Date Collected: 12/18/12 12:54**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-19**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/19/12 15:47	12/22/12 02:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 1				12/19/12 15:47	12/22/12 02:30	1
p-Terphenyl	107		38 - 148				12/19/12 15:47	12/22/12 02:30	1

**Client Sample ID: B-15A@4-5**

**Date Collected: 12/18/12 13:13**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-20**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 02:59	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 1	12/19/12 15:47	12/22/12 02:59	1
p-Terphenyl	97		38 - 148	12/19/12 15:47	12/22/12 02:59	1

**Client Sample ID: B-15A@6-7**  
**Date Collected: 12/18/12 13:15**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 1	12/19/12 15:47	12/22/12 03:28	1
p-Terphenyl	98		38 - 148	12/19/12 15:47	12/22/12 03:28	1

**Client Sample ID: B-5A@4-5**  
**Date Collected: 12/18/12 14:02**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 1	12/19/12 15:47	12/22/12 03:58	1
p-Terphenyl	84		38 - 148	12/19/12 15:47	12/22/12 03:58	1

**Client Sample ID: B-5A@6-7**  
**Date Collected: 12/18/12 14:05**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/22/12 04:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	12/19/12 15:47	12/22/12 04:27	1
p-Terphenyl	87		38 - 148	12/19/12 15:47	12/22/12 04:27	1

# Client Sample Results

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

TestAmerica Job ID: 720-46754-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: B-10A@0.5-1**  
**Date Collected: 12/18/12 09:15**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		3.7		mg/Kg		12/19/12 16:16	12/22/12 00:10	4
Vanadium	35		1.9		mg/Kg		12/19/12 16:16	12/22/12 00:10	4

**Client Sample ID: B-15C@1**  
**Date Collected: 12/18/12 12:10**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.8		mg/Kg		12/19/12 16:16	12/22/12 00:23	4
Vanadium	24		1.9		mg/Kg		12/19/12 16:16	12/22/12 00:23	4

**Client Sample ID: UG-2@0.5-1**  
**Date Collected: 12/18/12 14:31**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-24**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		3.6		mg/Kg		12/19/12 16:16	12/22/12 00:27	4
Vanadium	31		1.8		mg/Kg		12/19/12 16:16	12/22/12 00:27	4

**Client Sample ID: UG-1@0.5-1**  
**Date Collected: 12/18/12 15:10**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-25**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.9		3.8		mg/Kg		12/19/12 16:16	12/22/12 00:31	4
Vanadium	35		1.9		mg/Kg		12/19/12 16:16	12/22/12 00:31	4

# QC Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Lab Sample ID: MB 720-127368/1-A**

**Matrix: Solid**

**Analysis Batch: 127475**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 127368**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Acenaphthylene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Anthracene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Benzo[a]anthracene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Benzo[a]pyrene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Chrysene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Fluoranthene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Fluorene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Naphthalene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Phenanthrene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Pyrene	ND		4.9		ug/Kg		12/19/12 08:35	12/20/12 16:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		33 - 120				12/19/12 08:35	12/20/12 16:50	1
Terphenyl-d14	77		35 - 146				12/19/12 08:35	12/20/12 16:50	1

**Lab Sample ID: MB 720-127386/24**

**Matrix: Solid**

**Analysis Batch: 127386**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 127368**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Acenaphthylene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Anthracene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Benzo[a]anthracene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Benzo[a]pyrene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Benzo[b]fluoranthene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Benzo[g,h,i]perylene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Benzo[k]fluoranthene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Chrysene	151		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Dibenz(a,h)anthracene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Fluoranthene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Fluorene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Indeno[1,2,3-cd]pyrene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Naphthalene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Phenanthrene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Pyrene	ND		150		ug/Kg		12/19/12 19:16	12/19/12 19:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		33 - 120				12/19/12 19:16	12/19/12 19:16	1
Terphenyl-d14	86		35 - 146				12/19/12 19:16	12/19/12 19:16	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Lab Sample ID: LCS 720-127368/2-A**

**Matrix: Solid**

**Analysis Batch: 127386**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 127368**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	332	260		ug/Kg		78	49 - 120
Acenaphthylene	332	265		ug/Kg		80	52 - 120
Anthracene	332	280		ug/Kg		84	52 - 120
Benzo[a]anthracene	332	276		ug/Kg		83	52 - 120
Benzo[a]pyrene	332	270		ug/Kg		81	54 - 120
Benzo[b]fluoranthene	332	267		ug/Kg		80	51 - 120
Benzo[g,h,i]perylene	332	275		ug/Kg		83	48 - 120
Benzo[k]fluoranthene	332	287		ug/Kg		87	56 - 120
Chrysene	332	337		ug/Kg		101	40 - 120
Dibenz(a,h)anthracene	332	295		ug/Kg		89	50 - 120
Fluoranthene	332	272		ug/Kg		82	57 - 120
Fluorene	332	271		ug/Kg		82	52 - 120
Indeno[1,2,3-cd]pyrene	332	283		ug/Kg		85	48 - 120
Naphthalene	332	237		ug/Kg		71	46 - 120
Phenanthrene	332	259		ug/Kg		78	48 - 120
Pyrene	332	249		ug/Kg		75	53 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	76		33 - 120
Terphenyl-d14	83		35 - 146

**Lab Sample ID: LCSD 720-127368/3-A**

**Matrix: Solid**

**Analysis Batch: 127386**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 127368**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	330	273		ug/Kg		83	49 - 120	5	20
Acenaphthylene	330	278		ug/Kg		84	52 - 120	5	20
Anthracene	330	297		ug/Kg		90	52 - 120	6	20
Benzo[a]anthracene	330	293		ug/Kg		89	52 - 120	6	20
Benzo[a]pyrene	330	284		ug/Kg		86	54 - 120	5	20
Benzo[b]fluoranthene	330	276		ug/Kg		83	51 - 120	3	20
Benzo[g,h,i]perylene	330	288		ug/Kg		87	48 - 120	5	20
Benzo[k]fluoranthene	330	296		ug/Kg		90	56 - 120	3	20
Chrysene	330	353		ug/Kg		107	40 - 120	5	20
Dibenz(a,h)anthracene	330	310		ug/Kg		94	50 - 120	5	20
Fluoranthene	330	279		ug/Kg		84	57 - 120	3	20
Fluorene	330	284		ug/Kg		86	52 - 120	5	20
Indeno[1,2,3-cd]pyrene	330	299		ug/Kg		91	48 - 120	6	20
Naphthalene	330	249		ug/Kg		75	46 - 120	5	20
Phenanthrene	330	274		ug/Kg		83	48 - 120	6	20
Pyrene	330	260		ug/Kg		79	53 - 120	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	80		33 - 120
Terphenyl-d14	87		35 - 146

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46754-1

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

**Lab Sample ID: MB 720-127410/1-A**

**Matrix: Solid**

**Analysis Batch: 127539**

**Client Sample ID: Method Blank**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127410**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/19/12 15:47	12/21/12 13:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.003		0 - 1	12/19/12 15:47	12/21/12 13:48	1
p-Terphenyl	107		38 - 148	12/19/12 15:47	12/21/12 13:48	1

**Lab Sample ID: LCS 720-127410/2-A**

**Matrix: Solid**

**Analysis Batch: 127539**

**Client Sample ID: Lab Control Sample**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127410**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10-C28]	82.6	68.8		mg/Kg		83	36 - 112

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	120		38 - 148

**Lab Sample ID: LCSD 720-127410/3-A**

**Matrix: Solid**

**Analysis Batch: 127539**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127410**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.3	71.6		mg/Kg		87	36 - 112	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	118		38 - 148

**Lab Sample ID: 720-46754-1 MS**

**Matrix: Solid**

**Analysis Batch: 127539**

**Client Sample ID: B-21A@4-5**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	21		83.1	85.9		mg/Kg		78	50 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
p-Terphenyl	71		38 - 148

**Lab Sample ID: 720-46754-1 MSD**

**Matrix: Solid**

**Analysis Batch: 127539**

**Client Sample ID: B-21A@4-5**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	21		82.4	90.3		mg/Kg		84	50 - 150	5	30

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# QC Sample Results

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

TestAmerica Job ID: 720-46754-1

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

Lab Sample ID: 720-46754-1 MSD  
 Matrix: Solid  
 Analysis Batch: 127539

Client Sample ID: B-21A@4-5  
 Prep Type: Silica Gel Cleanup  
 Prep Batch: 127410

Surrogate	MSD %Recovery	MSD Qualifier	Limits
p-Terphenyl	78		38 - 148

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-127414/1-A  
 Matrix: Solid  
 Analysis Batch: 127470

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 127414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0		mg/Kg		12/19/12 16:16	12/20/12 10:04	1
Vanadium	ND		0.50		mg/Kg		12/19/12 16:16	12/20/12 10:04	1

Lab Sample ID: LCS 720-127414/2-A  
 Matrix: Solid  
 Analysis Batch: 127470

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 127414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	46.0		mg/Kg		92	80 - 120
Vanadium	50.0	46.3		mg/Kg		93	80 - 120

Lab Sample ID: LCSD 720-127414/3-A  
 Matrix: Solid  
 Analysis Batch: 127470

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 127414

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	50.0	46.8		mg/Kg		94	80 - 120	2	20
Vanadium	50.0	46.0		mg/Kg		92	80 - 120	1	20

Lab Sample ID: LCSSRM 720-127414/25-A  
 Matrix: Solid  
 Analysis Batch: 127470

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 127414

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	84.1	73.3		mg/Kg		87	69 - 119
Vanadium	142	123		mg/Kg		86	67 - 123

# QC Association Summary

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

TestAmerica Job ID: 720-46754-1

## GC/MS Semi VOA

### Prep Batch: 127368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-6	B-8C@4-5	Total/NA	Solid	3546	
720-46754-7	B-8C@6-7	Total/NA	Solid	3546	
720-46754-10	B-10A@6-7	Total/NA	Solid	3546	
720-46754-11	B-17A@4-5	Total/NA	Solid	3546	
720-46754-12	B-17A@6-7	Total/NA	Solid	3546	
720-46754-13	B-14A@4-5	Total/NA	Solid	3546	
720-46754-14	B-14A@6-7	Total/NA	Solid	3546	
720-46754-20	B-15A@4-5	Total/NA	Solid	3546	
720-46754-21	B-15A@6-7	Total/NA	Solid	3546	
LCS 720-127368/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-127368/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-127368/1-A	Method Blank	Total/NA	Solid	3546	
MB 720-127386/24	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 127386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-12	B-17A@6-7	Total/NA	Solid	8270C SIM	127368
720-46754-14	B-14A@6-7	Total/NA	Solid	8270C SIM	127368
720-46754-20	B-15A@4-5	Total/NA	Solid	8270C SIM	127368
720-46754-21	B-15A@6-7	Total/NA	Solid	8270C SIM	127368
LCS 720-127368/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	127368
LCSD 720-127368/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	127368
MB 720-127386/24	Method Blank	Total/NA	Solid	8270C SIM	127368

### Analysis Batch: 127475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-7	B-8C@6-7	Total/NA	Solid	8270C SIM	127368
MB 720-127368/1-A	Method Blank	Total/NA	Solid	8270C SIM	127368

### Analysis Batch: 127476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-6	B-8C@4-5	Total/NA	Solid	8270C SIM	127368
720-46754-11	B-17A@4-5	Total/NA	Solid	8270C SIM	127368
720-46754-13	B-14A@4-5	Total/NA	Solid	8270C SIM	127368

### Analysis Batch: 127572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-6	B-8C@4-5	Total/NA	Solid	8270C SIM	127368
720-46754-10	B-10A@6-7	Total/NA	Solid	8270C SIM	127368

## GC Semi VOA

### Prep Batch: 127410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-1	B-21A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-1 MS	B-21A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-1 MSD	B-21A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-2	B-21A@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-3	B-9A@7-8	Silica Gel Cleanup	Solid	3546	
720-46754-4	B-12A@4-5	Silica Gel Cleanup	Solid	3546	

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# QC Association Summary

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

TestAmerica Job ID: 720-46754-1

## GC Semi VOA (Continued)

### Prep Batch: 127410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-5	B-12A@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-6	B-8C@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-7	B-8C@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-10	B-10A@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-11	B-17A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-12	B-17A@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-13	B-14A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-14	B-14A@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-16	B-15C@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-17	B-15C@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-18	B-15B@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-19	B-15B@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-20	B-15A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-21	B-15A@6-7	Silica Gel Cleanup	Solid	3546	
720-46754-22	B-5A@4-5	Silica Gel Cleanup	Solid	3546	
720-46754-23	B-5A@6-7	Silica Gel Cleanup	Solid	3546	
LCS 720-127410/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-127410/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-127410/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

### Analysis Batch: 127539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-1	B-21A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-1 MS	B-21A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-1 MSD	B-21A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-2	B-21A@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-3	B-9A@7-8	Silica Gel Cleanup	Solid	8015B	127410
720-46754-10	B-10A@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-11	B-17A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-12	B-17A@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-13	B-14A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-14	B-14A@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-16	B-15C@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-17	B-15C@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-18	B-15B@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-19	B-15B@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-20	B-15A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-21	B-15A@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-22	B-5A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-23	B-5A@6-7	Silica Gel Cleanup	Solid	8015B	127410
LCS 720-127410/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	127410
LCSD 720-127410/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	127410
MB 720-127410/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	127410

### Analysis Batch: 127615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-4	B-12A@4-5	Silica Gel Cleanup	Solid	8015B	127410
720-46754-5	B-12A@6-7	Silica Gel Cleanup	Solid	8015B	127410
720-46754-6	B-8C@4-5	Silica Gel Cleanup	Solid	8015B	127410

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# QC Association Summary

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

TestAmerica Job ID: 720-46754-1

## GC Semi VOA (Continued)

### Analysis Batch: 127643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-7	B-8C@6-7	Silica Gel Cleanup	Solid	8015B	127410

## Metals

### Prep Batch: 127414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-9	B-10A@0.5-1	Total/NA	Solid	3050B	
720-46754-15	B-15C@1	Total/NA	Solid	3050B	
720-46754-24	UG-2@0.5-1	Total/NA	Solid	3050B	
720-46754-25	UG-1@0.5-1	Total/NA	Solid	3050B	
LCS 720-127414/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-127414/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-127414/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-127414/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 127470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127414/2-A	Lab Control Sample	Total/NA	Solid	6010B	127414
LCSD 720-127414/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	127414
LCSSRM 720-127414/25-A	Lab Control Sample	Total/NA	Solid	6010B	127414
MB 720-127414/1-A	Method Blank	Total/NA	Solid	6010B	127414

### Analysis Batch: 127649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-9	B-10A@0.5-1	Total/NA	Solid	6010B	127414
720-46754-15	B-15C@1	Total/NA	Solid	6010B	127414
720-46754-24	UG-2@0.5-1	Total/NA	Solid	6010B	127414
720-46754-25	UG-1@0.5-1	Total/NA	Solid	6010B	127414

# Lab Chronicle

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-21A@4-5

Lab Sample ID: 720-46754-1

Date Collected: 12/17/12 13:40

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 12:20	DH	TAL SF

## Client Sample ID: B-21A@6-7

Lab Sample ID: 720-46754-2

Date Collected: 12/17/12 13:45

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 16:44	DH	TAL SF

## Client Sample ID: B-9A@7-8

Lab Sample ID: 720-46754-3

Date Collected: 12/17/12 15:05

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 17:13	DH	TAL SF

## Client Sample ID: B-12A@4-5

Lab Sample ID: 720-46754-4

Date Collected: 12/17/12 15:45

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		3	127615	12/22/12 22:12	DH	TAL SF

## Client Sample ID: B-12A@6-7

Lab Sample ID: 720-46754-5

Date Collected: 12/17/12 15:50

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127615	12/22/12 22:41	DH	TAL SF

## Client Sample ID: B-8C@4-5

Lab Sample ID: 720-46754-6

Date Collected: 12/18/12 08:50

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		5	127476	12/20/12 21:03	ML	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-8C@4-5

Lab Sample ID: 720-46754-6

Date Collected: 12/18/12 08:50

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C SIM		50	127572	12/21/12 20:31	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		50	127615	12/22/12 21:43	DH	TAL SF

## Client Sample ID: B-8C@6-7

Lab Sample ID: 720-46754-7

Date Collected: 12/18/12 08:55

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		5	127475	12/20/12 18:46	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		2	127643	12/24/12 14:38	DH	TAL SF

## Client Sample ID: B-10A@0.5-1

Lab Sample ID: 720-46754-9

Date Collected: 12/18/12 09:15

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			127414	12/19/12 16:16	ASB	TAL SF
Total/NA	Analysis	6010B		4	127649	12/22/12 00:10	CAM	TAL SF

## Client Sample ID: B-10A@6-7

Lab Sample ID: 720-46754-10

Date Collected: 12/18/12 09:18

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		2	127572	12/21/12 20:55	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 19:40	DH	TAL SF

## Client Sample ID: B-17A@4-5

Lab Sample ID: 720-46754-11

Date Collected: 12/18/12 10:03

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		2	127476	12/20/12 21:44	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 20:09	DH	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-17A@6-7

Lab Sample ID: 720-46754-12

Date Collected: 12/18/12 10:06

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		1	127386	12/19/12 23:08	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 20:39	DH	TAL SF

## Client Sample ID: B-14A@4-5

Lab Sample ID: 720-46754-13

Date Collected: 12/18/12 11:40

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		2	127476	12/20/12 22:05	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/21/12 21:08	DH	TAL SF

## Client Sample ID: B-14A@6-7

Lab Sample ID: 720-46754-14

Date Collected: 12/18/12 11:45

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		1	127386	12/19/12 23:31	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 00:33	DH	TAL SF

## Client Sample ID: B-15C@1

Lab Sample ID: 720-46754-15

Date Collected: 12/18/12 12:10

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			127414	12/19/12 16:16	ASB	TAL SF
Total/NA	Analysis	6010B		4	127649	12/22/12 00:23	CAM	TAL SF

## Client Sample ID: B-15C@4-5

Lab Sample ID: 720-46754-16

Date Collected: 12/18/12 12:15

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 01:03	DH	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-15C@6-7

Lab Sample ID: 720-46754-17

Date Collected: 12/18/12 12:20

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 01:32	DH	TAL SF

## Client Sample ID: B-15B@4-5

Lab Sample ID: 720-46754-18

Date Collected: 12/18/12 12:52

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 02:01	DH	TAL SF

## Client Sample ID: B-15B@6-7

Lab Sample ID: 720-46754-19

Date Collected: 12/18/12 12:54

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 02:30	DH	TAL SF

## Client Sample ID: B-15A@4-5

Lab Sample ID: 720-46754-20

Date Collected: 12/18/12 13:13

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		1	127386	12/19/12 23:54	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 02:59	DH	TAL SF

## Client Sample ID: B-15A@6-7

Lab Sample ID: 720-46754-21

Date Collected: 12/18/12 13:15

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127368	12/19/12 08:35	AM	TAL SF
Total/NA	Analysis	8270C SIM		1	127386	12/20/12 00:17	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 03:28	DH	TAL SF

TestAmerica Pleasanton



# Lab Chronicle

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

TestAmerica Job ID: 720-46754-1

## Client Sample ID: B-5A@4-5

Lab Sample ID: 720-46754-22

Date Collected: 12/18/12 14:02

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 03:58	DH	TAL SF

## Client Sample ID: B-5A@6-7

Lab Sample ID: 720-46754-23

Date Collected: 12/18/12 14:05

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127410	12/19/12 15:47	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127539	12/22/12 04:27	DH	TAL SF

## Client Sample ID: UG-2@0.5-1

Lab Sample ID: 720-46754-24

Date Collected: 12/18/12 14:31

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			127414	12/19/12 16:16	ASB	TAL SF
Total/NA	Analysis	6010B		4	127649	12/22/12 00:27	CAM	TAL SF

## Client Sample ID: UG-1@0.5-1

Lab Sample ID: 720-46754-25

Date Collected: 12/18/12 15:10

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			127414	12/19/12 16:16	ASB	TAL SF
Total/NA	Analysis	6010B		4	127649	12/22/12 00:31	CAM	TAL SF

**Laboratory References:**

TAL SF = 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: 720-46754-1

## 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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Method Summary

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

TestAmerica Job ID: 720-46754-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF

**Protocol References:**

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

**Laboratory References:**

TAL SF = 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: 720-46754-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46754-1	B-21A@4-5	Solid	12/17/12 13:40	12/18/12 17:00
720-46754-2	B-21A@6-7	Solid	12/17/12 13:45	12/18/12 17:00
720-46754-3	B-9A@7-8	Solid	12/17/12 15:05	12/18/12 17:00
720-46754-4	B-12A@4-5	Solid	12/17/12 15:45	12/18/12 17:00
720-46754-5	B-12A@6-7	Solid	12/17/12 15:50	12/18/12 17:00
720-46754-6	B-8C@4-5	Solid	12/18/12 08:50	12/18/12 17:00
720-46754-7	B-8C@6-7	Solid	12/18/12 08:55	12/18/12 17:00
720-46754-9	B-10A@0.5-1	Solid	12/18/12 09:15	12/18/12 17:00
720-46754-10	B-10A@6-7	Solid	12/18/12 09:18	12/18/12 17:00
720-46754-11	B-17A@4-5	Solid	12/18/12 10:03	12/18/12 17:00
720-46754-12	B-17A@6-7	Solid	12/18/12 10:06	12/18/12 17:00
720-46754-13	B-14A@4-5	Solid	12/18/12 11:40	12/18/12 17:00
720-46754-14	B-14A@6-7	Solid	12/18/12 11:45	12/18/12 17:00
720-46754-15	B-15C@1	Solid	12/18/12 12:10	12/18/12 17:00
720-46754-16	B-15C@4-5	Solid	12/18/12 12:15	12/18/12 17:00
720-46754-17	B-15C@6-7	Solid	12/18/12 12:20	12/18/12 17:00
720-46754-18	B-15B@4-5	Solid	12/18/12 12:52	12/18/12 17:00
720-46754-19	B-15B@6-7	Solid	12/18/12 12:54	12/18/12 17:00
720-46754-20	B-15A@4-5	Solid	12/18/12 13:13	12/18/12 17:00
720-46754-21	B-15A@6-7	Solid	12/18/12 13:15	12/18/12 17:00
720-46754-22	B-5A@4-5	Solid	12/18/12 14:02	12/18/12 17:00
720-46754-23	B-5A@6-7	Solid	12/18/12 14:05	12/18/12 17:00
720-46754-24	UG-2@0.5-1	Solid	12/18/12 14:31	12/18/12 17:00
720-46754-25	UG-1@0.5-1	Solid	12/18/12 15:10	12/18/12 17:00

720-46754

Regulatory Program:  DW  NPDES  RCRA  Other:

143048

Client Contact		Project Manager: <i>Melissa Terry</i>		Site Contact:		Date:		COC No:	
Your Company Name here <i>Niyo &amp; Moore</i>		Tel/Fax: <i>510.343.3000</i>		Lab Contact:		Carrier:		_____ of _____ COCs	
Address <i>1956 Webster St. # 400</i>		Analysis Turnaround Time		Filtered Sample (Y/N) <input type="checkbox"/> Composite = C / Grab <input checked="" type="checkbox"/> (G) TPH-ho PAHs Arsenic & Vanadium Title 22 Metals HOLD				For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____ Sample Specific Notes: _____	
City/State/Zip <i>Oakland CA 94612</i>		Calendar (C) or Work Days (W) _____							
(xxx) xxx-xxxx <i>510.343.3000</i> Phone		TAT if different from Below _____							
(xxx) xxx-xxxx <i>.3001</i> FAX		<input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> <u>1 week</u> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Project Name: <i>Western Forge &amp; Flange</i>		P O # <i>401822001</i>							

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Composite = C / Grab (G)	TPH-ho	PAHs	Arsenic & Vanadium	Title 22 Metals	HOLD
B-21A@ 4-5	12/13/12	1340		Soil	1	N	G	X				
B-21A@ 6-7		1345			1			X				
B-9A@ 4-8		1505			1			X				
B-12A@ 4-5		1545			1			X				
B-12A@ 6-7		1550			1			X				
B-8C@ 4-5	12/18/12	0850			1			X				
B-8C@ 6-7		0855			1			X				
B-8C@ 9-10		0900			1			X				HOLD
B-10AC 0.5-1		0915			1			X				
B-10A@ 6-7		0918			1			X				
B-17A@ 4-5		1003			1			X				
B-17A@ 6-7		1006			1			X				

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-Hazardous  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:

*TPH hydraulic oil by 8015M w/silica gel cleanup*

*PAHs by 8270*

*Title 22 Metals by 6010B*

*Arsenic & Vanadium by 6010B*

Relinquished by: <i>Melissa Terry</i>	Company: <i>Niyo &amp; Moore</i>	Date/Time: <i>12/18/12 1545</i>	Received by: <i>[Signature]</i>	Company: <i>TRSF</i>	Date/Time: <i>12-18-12 1545</i>
Relinquished by: <i>[Signature]</i>	Company: <i>TRSF</i>	Date/Time: <i>12-18-12 1500</i>	Received by: _____	Company: _____	Date/Time: _____
Relinquished by: _____	Company: _____	Date/Time: _____	Received in Laboratory by: <i>[Signature]</i>	Company: <i>TestAmerica</i>	Date/Time: <i>12-18-12 1700</i>

1.5° 1.7° C

12/26/2012  
Page 34 of 37

Anaheim, CA 92805  
phone 714.328.7971 fax

Regulatory Program:  DW  NPDES  RCRA  Other:

Client Contact Your Company Name here <b>Ninyo &amp; Moore</b> Address <b>1956 Webster St. # 400</b> City/State/Zip <b>Oakland CA 94612</b> (xxx) xxx-xxxx <b>510.343.3000</b> Phone (xxx) xxx-xxxx <b>.3001</b> FAX Project Name: <b>Western Forge &amp; Flange</b> Site: <b>540 Cleveland Ave., Albany, CA</b> P O # <b>401823001</b>		Project Manager: <b>Melissa Terry</b> Tel/Fax: <b>510.343.3000</b> Analysis Turnaround Time Calendar (C) or Work Days (W) _____ TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> <b>1 week</b> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Lab Contact: Date: Carrier:		COC No: _____ of _____ COCs For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sampler: Sample Specific Notes:															
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N) (Composite = C / Grab = G)	TPH-ho	PAHs	Arsenic & Vanadium	Title 22 Metals											
B-14A@ 4-5	12/18/12	1140	Soil		1	G	X	X													
B-14A@ 6-7		1145			1		X	X													
B-15C@ 1		1210			1				X												
B-15C@ 4-5		1215			1		X	X													
B-15C@ 6-7		1220			1		X	X													
B-15B@ 4-5		1252			1		X	X													
B-15B@ 6-7		1254			1		X	X													
B-15A@ 4-5		1313			1		X	X													
B-15A@ 6-7		1315			1		X	X													
B-5A@ 4-5		1402			1		X	X													
B-5A@ 6-7		1405			1		X	X													
UG-2@ 0.5-1		1431			1				X												
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____						Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months															
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. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown																					
Special Instructions/QC Requirements & Comments: TPH-hydraulic oil by 8015M w/silica gel cleanup PAHs by 8240						Title 22 Metals by 6010B Arsenic & Vanadium by 6010B															
Relinquished by: <b>Melissa Terry M Terry</b>		Company: <b>Ninyo &amp; Moore</b>		Date/Time: <b>12/18 1545</b>		Received by: <b>[Signature]</b>		Company: <b>TRSE</b>		Date/Time: <b>12-18-12 1545</b>											
Relinquished by: <b>[Signature]</b>		Company: <b>TRSE</b>		Date/Time: <b>12-18-12 1700</b>		Received by: <b>[Signature]</b>		Company: <b>TestAmerica</b>		Date/Time: <b>12-18-12 1700</b>											
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: <b>[Signature]</b>		Company:		Date/Time:											

720-46754

Anaheim, CA 92805  
phone 714.328.7971 fax

Regulatory Program:  DW  NPDES  RCRA  Other:

<b>Client Contact</b> Your Company Name here <i>Ninyo &amp; Moore</i> Address <i>1950 Webster St. # 400</i> City/State/Zip <i>Oakland CA 94612</i> (xxx) xxx-xxxx <i>510.343.3000</i> Phone (xxx) xxx-xxxx <i>.3001</i> FAX Project Name: <i>Western Forge &amp; Flange</i> Site: <i>540 Cleveland Ave., Albany, CA</i> P O # <i>401 823 001</i>		<b>Project Manager:</b> <i>Melissa Terry</i> Tel/Fax: <i>510.343.3000</i> <b>Analysis Turnaround Time</b> Calendar ( C ) or Work Days ( W ) _____ TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> _____ <b>Lab Contact:</b> _____ <b>Date:</b> _____ <b>Carrier:</b> _____		<b>COC No:</b> _____ _____ of _____ COCs <b>For Lab Use Only:</b> Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____ Sample Specific Notes: _____										
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample ( Y / N )	Composite = C / Grab = G								
UG-1 @ 0.5-1		12/18/12	1510	Soil		1	NG		Arsenic & Vanadium							
<b>Preservation Used:</b> 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____							<b>Possible Hazard Identification:</b> 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. <input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
							<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month )</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months									
<b>Special Instructions/QC Requirements &amp; Comments:</b> <p style="text-align: center; font-size: 1.2em;">Arsenic &amp; Vanadium by 6010B</p>																
Relinquished by: <i>Melissa Terry</i> Relinquished by: <i>[Signature]</i> Relinquished by: _____		Company: <i>Ninyo &amp; Moore</i> Company: <i>[Signature]</i> Company: _____		Date/Time: <i>12/18/12 1545</i> Date/Time: <i>12-18-12 1700</i> Date/Time: _____		Received by: <i>[Signature]</i> Received by: _____ Received in Laboratory by: <i>[Signature]</i>		Company: <i>TRK</i> Company: _____ Company: <i>TestAmerica</i>		Date/Time: <i>12-18-12 1545</i> Date/Time: _____ Date/Time: <i>12-18-12 1700</i>						

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## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46754-1

**Login Number: 46754**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Tacmo, David**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

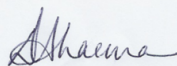
TestAmerica Job ID: 720-46754-2

Client Project/Site: Western Forge & Flange

For:

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

Attn: Mr. Kris Larsen



Authorized for release by:  
1/22/2013 3:14:37 PM

Dimple Sharma  
Project Manager I  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46754-2

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46754-2

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**Job ID: 720-46754-2**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46754-2

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/18/2012 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 1.7° C.

**Metals**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46754-2

## Client Sample ID: B-9A@7-8

## Lab Sample ID: 720-46754-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.8		4.0		mg/Kg	4		6010B	Total/NA
Barium	240		2.0		mg/Kg	4		6010B	Total/NA
Beryllium	0.43		0.40		mg/Kg	4		6010B	Total/NA
Chromium	21		2.0		mg/Kg	4		6010B	Total/NA
Cobalt	6.1		0.79		mg/Kg	4		6010B	Total/NA
Copper	48		5.9		mg/Kg	4		6010B	Total/NA
Lead	170		2.0		mg/Kg	4		6010B	Total/NA
Nickel	23		2.0		mg/Kg	4		6010B	Total/NA
Vanadium	22		2.0		mg/Kg	4		6010B	Total/NA
Zinc	44		5.9		mg/Kg	4		6010B	Total/NA
Mercury	0.13		0.0087		mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-12A@4-5

## Lab Sample ID: 720-46754-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.9		4.0		mg/Kg	4		6010B	Total/NA
Barium	1100		2.0		mg/Kg	4		6010B	Total/NA
Beryllium	0.44		0.40		mg/Kg	4		6010B	Total/NA
Chromium	33		2.0		mg/Kg	4		6010B	Total/NA
Cobalt	5.4		0.79		mg/Kg	4		6010B	Total/NA
Copper	42		5.9		mg/Kg	4		6010B	Total/NA
Lead	270		2.0		mg/Kg	4		6010B	Total/NA
Nickel	19		2.0		mg/Kg	4		6010B	Total/NA
Vanadium	25		2.0		mg/Kg	4		6010B	Total/NA
Zinc	490		5.9		mg/Kg	4		6010B	Total/NA
Mercury	9.1		0.087		mg/Kg	10		7471A	Total/NA

## Client Sample ID: B-8C@4-5

## Lab Sample ID: 720-46754-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.1		3.9		mg/Kg	4		6010B	Total/NA
Barium	170		2.0		mg/Kg	4		6010B	Total/NA
Chromium	58		2.0		mg/Kg	4		6010B	Total/NA
Cobalt	12		0.78		mg/Kg	4		6010B	Total/NA
Copper	94		5.9		mg/Kg	4		6010B	Total/NA
Lead	45		2.0		mg/Kg	4		6010B	Total/NA
Molybdenum	7.5		2.0		mg/Kg	4		6010B	Total/NA
Nickel	110		2.0		mg/Kg	4		6010B	Total/NA
Vanadium	38		2.0		mg/Kg	4		6010B	Total/NA
Zinc	63		5.9		mg/Kg	4		6010B	Total/NA
Mercury	0.048		0.0097		mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-10A@0.5-1

## Lab Sample ID: 720-46754-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	5.0		1.9		mg/Kg	4		6010B	Total/NA
Arsenic	20		3.8		mg/Kg	4		6010B	Total/NA
Barium	130		1.9		mg/Kg	4		6010B	Total/NA
Chromium	200		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	29		0.76		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46754-2

## Client Sample ID: B-10A@0.5-1 (Continued)

Lab Sample ID: 720-46754-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	730		5.7		mg/Kg	4		6010B	Total/NA
Lead	96		1.9		mg/Kg	4		6010B	Total/NA
Molybdenum	57		1.9		mg/Kg	4		6010B	Total/NA
Nickel	450		1.9		mg/Kg	4		6010B	Total/NA
Selenium	4.1		3.8		mg/Kg	4		6010B	Total/NA
Thallium	1.9		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	26		1.9		mg/Kg	4		6010B	Total/NA
Zinc	410		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.079		0.0086		mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-15C@1

Lab Sample ID: 720-46754-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	270		1.9		mg/Kg	4		6010B	Total/NA
Beryllium	0.37		0.37		mg/Kg	4		6010B	Total/NA
Chromium	14		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	4.5		0.75		mg/Kg	4		6010B	Total/NA
Copper	16		5.6		mg/Kg	4		6010B	Total/NA
Lead	54		1.9		mg/Kg	4		6010B	Total/NA
Nickel	9.9		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	19		1.9		mg/Kg	4		6010B	Total/NA
Zinc	67		5.6		mg/Kg	4		6010B	Total/NA
Mercury	1.5		0.0092		mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-15A@4-5

Lab Sample ID: 720-46754-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	190		1.9		mg/Kg	4		6010B	Total/NA
Beryllium	0.71		0.37		mg/Kg	4		6010B	Total/NA
Chromium	13		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	7.6		0.75		mg/Kg	4		6010B	Total/NA
Copper	10		5.6		mg/Kg	4		6010B	Total/NA
Lead	50		1.9		mg/Kg	4		6010B	Total/NA
Nickel	12		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	24		1.9		mg/Kg	4		6010B	Total/NA
Zinc	34		5.6		mg/Kg	4		6010B	Total/NA
Mercury	0.022		0.010		mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-5A@4-5

Lab Sample ID: 720-46754-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	430		1.9		mg/Kg	4		6010B	Total/NA
Beryllium	0.43		0.38		mg/Kg	4		6010B	Total/NA
Chromium	30		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	4.8		0.77		mg/Kg	4		6010B	Total/NA
Copper	11		5.8		mg/Kg	4		6010B	Total/NA
Lead	60		1.9		mg/Kg	4		6010B	Total/NA
Nickel	13		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	29		1.9		mg/Kg	4		6010B	Total/NA
Zinc	69		5.8		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46754-2

**Client Sample ID: B-5A@4-5 (Continued)**

**Lab Sample ID: 720-46754-22**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.53		0.0087		mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

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# Client Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 6010B - Metals (ICP)

**Client Sample ID: B-9A@7-8**

**Date Collected: 12/17/12 15:05**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-3**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Arsenic</b>	<b>4.8</b>		4.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Barium</b>	<b>240</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Beryllium</b>	<b>0.43</b>		0.40		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
Cadmium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Chromium</b>	<b>21</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Cobalt</b>	<b>6.1</b>		0.79		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Copper</b>	<b>48</b>		5.9		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Lead</b>	<b>170</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
Molybdenum	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Nickel</b>	<b>23</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
Selenium	ND		4.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
Silver	ND		0.99		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
Thallium	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Vanadium</b>	<b>22</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 22:57	4
<b>Zinc</b>	<b>44</b>		5.9		mg/Kg		01/18/13 15:48	01/21/13 22:57	4

**Client Sample ID: B-12A@4-5**

**Date Collected: 12/17/12 15:45**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-4**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Arsenic</b>	<b>5.9</b>		4.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Barium</b>	<b>1100</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Beryllium</b>	<b>0.44</b>		0.40		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
Cadmium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Chromium</b>	<b>33</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Cobalt</b>	<b>5.4</b>		0.79		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Copper</b>	<b>42</b>		5.9		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Lead</b>	<b>270</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
Molybdenum	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Nickel</b>	<b>19</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
Selenium	ND		4.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
Silver	ND		0.99		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
Thallium	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Vanadium</b>	<b>25</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:02	4
<b>Zinc</b>	<b>490</b>		5.9		mg/Kg		01/18/13 15:48	01/21/13 23:02	4

**Client Sample ID: B-8C@4-5**

**Date Collected: 12/18/12 08:50**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-6**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
<b>Arsenic</b>	<b>7.1</b>		3.9		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
<b>Barium</b>	<b>170</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Beryllium	ND		0.39		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Cadmium	ND		0.49		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
<b>Chromium</b>	<b>58</b>		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
<b>Cobalt</b>	<b>12</b>		0.78		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
<b>Copper</b>	<b>94</b>		5.9		mg/Kg		01/18/13 15:48	01/21/13 23:06	4

TestAmerica Pleasanton



# Client Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 6010B - Metals (ICP) (Continued)

**Client Sample ID: B-8C@4-5**  
**Date Collected: 12/18/12 08:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	45		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Molybdenum	7.5		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Nickel	110		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Selenium	ND		3.9		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Silver	ND		0.98		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Thallium	ND		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Vanadium	38		2.0		mg/Kg		01/18/13 15:48	01/21/13 23:06	4
Zinc	63		5.9		mg/Kg		01/18/13 15:48	01/21/13 23:06	4

**Client Sample ID: B-10A@0.5-1**  
**Date Collected: 12/18/12 09:15**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.0		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Arsenic	20		3.8		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Barium	130		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Beryllium	ND		0.38		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Cadmium	ND		0.48		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Chromium	200		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Cobalt	29		0.76		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Copper	730		5.7		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Lead	96		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Molybdenum	57		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Nickel	450		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Selenium	4.1		3.8		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Silver	ND		0.95		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Thallium	1.9		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Vanadium	26		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:11	4
Zinc	410		5.7		mg/Kg		01/18/13 15:48	01/21/13 23:11	4

**Client Sample ID: B-15C@1**  
**Date Collected: 12/18/12 12:10**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Arsenic	ND		3.7		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Barium	270		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Beryllium	0.37		0.37		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Cadmium	ND		0.47		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Chromium	14		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Cobalt	4.5		0.75		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Copper	16		5.6		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Lead	54		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Molybdenum	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Nickel	9.9		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Selenium	ND		3.7		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Silver	ND		0.93		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Thallium	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Vanadium	19		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:15	4
Zinc	67		5.6		mg/Kg		01/18/13 15:48	01/21/13 23:15	4

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 6010B - Metals (ICP)

**Client Sample ID: B-15A@4-5**  
**Date Collected: 12/18/12 13:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
Arsenic	ND		3.7		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Barium</b>	<b>190</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Beryllium</b>	<b>0.71</b>		0.37		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
Cadmium	ND		0.47		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Chromium</b>	<b>13</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Cobalt</b>	<b>7.6</b>		0.75		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Copper</b>	<b>10</b>		5.6		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Lead</b>	<b>50</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
Molybdenum	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Nickel</b>	<b>12</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
Selenium	ND		3.7		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
Silver	ND		0.93		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
Thallium	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Vanadium</b>	<b>24</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:19	4
<b>Zinc</b>	<b>34</b>		5.6		mg/Kg		01/18/13 15:48	01/21/13 23:19	4

**Client Sample ID: B-5A@4-5**  
**Date Collected: 12/18/12 14:02**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
Arsenic	ND		3.8		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Barium</b>	<b>430</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Beryllium</b>	<b>0.43</b>		0.38		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
Cadmium	ND		0.48		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Chromium</b>	<b>30</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Cobalt</b>	<b>4.8</b>		0.77		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Copper</b>	<b>11</b>		5.8		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Lead</b>	<b>60</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
Molybdenum	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Nickel</b>	<b>13</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
Selenium	ND		3.8		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
Silver	ND		0.96		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
Thallium	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Vanadium</b>	<b>29</b>		1.9		mg/Kg		01/18/13 15:48	01/21/13 23:33	4
<b>Zinc</b>	<b>69</b>		5.8		mg/Kg		01/18/13 15:48	01/21/13 23:33	4

# Client Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 7471A - Mercury (CVAA)

**Client Sample ID: B-9A@7-8**  
**Date Collected: 12/17/12 15:05**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.0087		mg/Kg		01/17/13 22:07	01/18/13 17:59	1

**Client Sample ID: B-12A@4-5**  
**Date Collected: 12/17/12 15:45**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	9.1		0.087		mg/Kg		01/17/13 22:07	01/18/13 18:42	10

**Client Sample ID: B-8C@4-5**  
**Date Collected: 12/18/12 08:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.0097		mg/Kg		01/17/13 22:07	01/18/13 18:04	1

**Client Sample ID: B-10A@0.5-1**  
**Date Collected: 12/18/12 09:15**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079		0.0086		mg/Kg		01/17/13 22:07	01/18/13 18:06	1

**Client Sample ID: B-15C@1**  
**Date Collected: 12/18/12 12:10**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.5		0.0092		mg/Kg		01/18/13 20:50	01/21/13 17:58	1

**Client Sample ID: B-15A@4-5**  
**Date Collected: 12/18/12 13:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.010		mg/Kg		01/17/13 22:07	01/18/13 18:09	1

**Client Sample ID: B-5A@4-5**  
**Date Collected: 12/18/12 14:02**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46754-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.53		0.0087		mg/Kg		01/17/13 22:07	01/18/13 18:11	1

# QC Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-129026/1-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Arsenic	ND		1.0		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Barium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Beryllium	ND		0.10		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Cadmium	ND		0.13		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Chromium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Cobalt	ND		0.20		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Copper	ND		1.5		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Lead	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Molybdenum	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Nickel	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Selenium	ND		1.0		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Silver	ND		0.25		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Thallium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Vanadium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Zinc	ND		1.5		mg/Kg		01/18/13 15:48	01/21/13 21:47	1

**Lab Sample ID: LCS 720-129026/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	49.9		mg/Kg		100	80 - 120
Arsenic	50.0	49.4		mg/Kg		99	80 - 120
Barium	50.0	50.2		mg/Kg		100	80 - 120
Beryllium	50.0	49.8		mg/Kg		100	80 - 120
Cadmium	50.0	49.1		mg/Kg		98	80 - 120
Chromium	50.0	49.3		mg/Kg		99	80 - 120
Cobalt	50.0	51.1		mg/Kg		102	80 - 120
Copper	50.0	49.8		mg/Kg		100	80 - 120
Lead	50.0	50.6		mg/Kg		101	80 - 120
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120
Nickel	50.0	50.1		mg/Kg		100	80 - 120
Selenium	50.0	48.7		mg/Kg		97	80 - 120
Silver	25.0	25.2		mg/Kg		101	80 - 120
Thallium	50.0	50.5		mg/Kg		101	80 - 120
Vanadium	50.0	49.7		mg/Kg		99	80 - 120
Zinc	50.0	50.0		mg/Kg		100	80 - 120

**Lab Sample ID: LCSD 720-129026/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	49.7		mg/Kg		99	80 - 120	0	20
Arsenic	50.0	49.5		mg/Kg		99	80 - 120	0	20
Barium	50.0	50.4		mg/Kg		101	80 - 120	0	20
Beryllium	50.0	50.0		mg/Kg		100	80 - 120	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID:** LCSD 720-129026/3-A  
**Matrix:** Solid  
**Analysis Batch:** 129143

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA  
**Prep Batch:** 129026

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
							Limits	RPD	Limit
Cadmium	50.0	49.2		mg/Kg		98	80 - 120	0	20
Chromium	50.0	49.6		mg/Kg		99	80 - 120	1	20
Cobalt	50.0	51.1		mg/Kg		102	80 - 120	0	20
Copper	50.0	50.2		mg/Kg		100	80 - 120	1	20
Lead	50.0	50.7		mg/Kg		101	80 - 120	0	20
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120	0	20
Nickel	50.0	50.2		mg/Kg		100	80 - 120	0	20
Selenium	50.0	48.8		mg/Kg		98	80 - 120	0	20
Silver	25.0	25.4		mg/Kg		101	80 - 120	1	20
Thallium	50.0	50.7		mg/Kg		101	80 - 120	0	20
Vanadium	50.0	49.9		mg/Kg		100	80 - 120	0	20
Zinc	50.0	49.9		mg/Kg		100	80 - 120	0	20

**Lab Sample ID:** LCSSRM 720-129026/25-A  
**Matrix:** Solid  
**Analysis Batch:** 129143

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 129026

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
							Limits	RPD	Limit
Antimony	76.3	43.8		mg/Kg		57	11 - 101		
Arsenic	84.1	81.0		mg/Kg		96	69 - 119		
Barium	517	501		mg/Kg		97	61 - 117		
Beryllium	153	141		mg/Kg		92	56 - 102		
Cadmium	42.0	37.8		mg/Kg		90	67 - 118		
Chromium	269	247		mg/Kg		92	67 - 121		
Cobalt	323	326		mg/Kg		101	64 - 133		
Copper	263	248		mg/Kg		94	68 - 126		
Lead	280	267		mg/Kg		95	62 - 113		
Molybdenum	215	208		mg/Kg		97	62 - 128		
Nickel	106	98.1		mg/Kg		93	65 - 117		
Selenium	138	129		mg/Kg		94	63 - 126		
Silver	50.4	53.4		mg/Kg		106	51 - 130		
Thallium	331	314		mg/Kg		95	64 - 124		
Vanadium	142	138		mg/Kg		97	67 - 123		
Zinc	574	555		mg/Kg		97	62 - 110		

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID:** MB 720-128950/1-A  
**Matrix:** Solid  
**Analysis Batch:** 129034

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 128950

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.010		mg/Kg		01/17/13 22:07	01/18/13 17:25	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46754-2

## Method: 7471A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 720-128950/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129034**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 128950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.850		mg/Kg		102	80 - 120

**Lab Sample ID: LCSD 720-128950/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129034**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 128950**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.858		mg/Kg		103	80 - 120	1	20

**Lab Sample ID: MB 720-129040/1-A**  
**Matrix: Solid**  
**Analysis Batch: 129126**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 129040**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		01/18/13 20:50	01/21/13 17:33	1

**Lab Sample ID: LCS 720-129040/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129126**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 129040**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.883		mg/Kg		106	80 - 120

**Lab Sample ID: LCSD 720-129040/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129126**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 129040**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.892		mg/Kg		107	80 - 120	1	20

# QC Association Summary

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

TestAmerica Job ID: 720-46754-2

## Metals

### Prep Batch: 128950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-3	B-9A@7-8	Total/NA	Solid	7471A	
720-46754-4	B-12A@4-5	Total/NA	Solid	7471A	
720-46754-6	B-8C@4-5	Total/NA	Solid	7471A	
720-46754-9	B-10A@0.5-1	Total/NA	Solid	7471A	
720-46754-20	B-15A@4-5	Total/NA	Solid	7471A	
720-46754-22	B-5A@4-5	Total/NA	Solid	7471A	
LCS 720-128950/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-128950/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-128950/1-A	Method Blank	Total/NA	Solid	7471A	

### Prep Batch: 129026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-3	B-9A@7-8	Total/NA	Solid	3050B	
720-46754-4	B-12A@4-5	Total/NA	Solid	3050B	
720-46754-6	B-8C@4-5	Total/NA	Solid	3050B	
720-46754-9	B-10A@0.5-1	Total/NA	Solid	3050B	
720-46754-15	B-15C@1	Total/NA	Solid	3050B	
720-46754-20	B-15A@4-5	Total/NA	Solid	3050B	
720-46754-22	B-5A@4-5	Total/NA	Solid	3050B	
LCS 720-129026/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-129026/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-129026/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-129026/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 129034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-3	B-9A@7-8	Total/NA	Solid	7471A	128950
720-46754-4	B-12A@4-5	Total/NA	Solid	7471A	128950
720-46754-6	B-8C@4-5	Total/NA	Solid	7471A	128950
720-46754-9	B-10A@0.5-1	Total/NA	Solid	7471A	128950
720-46754-20	B-15A@4-5	Total/NA	Solid	7471A	128950
720-46754-22	B-5A@4-5	Total/NA	Solid	7471A	128950
LCS 720-128950/2-A	Lab Control Sample	Total/NA	Solid	7471A	128950
LCSD 720-128950/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	128950
MB 720-128950/1-A	Method Blank	Total/NA	Solid	7471A	128950

### Prep Batch: 129040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-15	B-15C@1	Total/NA	Solid	7471A	
LCS 720-129040/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-129040/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-129040/1-A	Method Blank	Total/NA	Solid	7471A	

### Analysis Batch: 129126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-15	B-15C@1	Total/NA	Solid	7471A	129040
LCS 720-129040/2-A	Lab Control Sample	Total/NA	Solid	7471A	129040
LCSD 720-129040/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	129040
MB 720-129040/1-A	Method Blank	Total/NA	Solid	7471A	129040

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46754-2

## Metals (Continued)

### Analysis Batch: 129143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46754-3	B-9A@7-8	Total/NA	Solid	6010B	129026
720-46754-4	B-12A@4-5	Total/NA	Solid	6010B	129026
720-46754-6	B-8C@4-5	Total/NA	Solid	6010B	129026
720-46754-9	B-10A@0.5-1	Total/NA	Solid	6010B	129026
720-46754-15	B-15C@1	Total/NA	Solid	6010B	129026
720-46754-20	B-15A@4-5	Total/NA	Solid	6010B	129026
720-46754-22	B-5A@4-5	Total/NA	Solid	6010B	129026
LCS 720-129026/2-A	Lab Control Sample	Total/NA	Solid	6010B	129026
LCSD 720-129026/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	129026
LCSSRM 720-129026/25-A	Lab Control Sample	Total/NA	Solid	6010B	129026
MB 720-129026/1-A	Method Blank	Total/NA	Solid	6010B	129026



# Lab Chronicle

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

TestAmerica Job ID: 720-46754-2

## Client Sample ID: B-9A@7-8

Lab Sample ID: 720-46754-3

Date Collected: 12/17/12 15:05

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		1	129034	01/18/13 17:59	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 22:57	SK	TAL SF

## Client Sample ID: B-12A@4-5

Lab Sample ID: 720-46754-4

Date Collected: 12/17/12 15:45

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		10	129034	01/18/13 18:42	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 23:02	SK	TAL SF

## Client Sample ID: B-8C@4-5

Lab Sample ID: 720-46754-6

Date Collected: 12/18/12 08:50

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		1	129034	01/18/13 18:04	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 23:06	SK	TAL SF

## Client Sample ID: B-10A@0.5-1

Lab Sample ID: 720-46754-9

Date Collected: 12/18/12 09:15

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		1	129034	01/18/13 18:06	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 23:11	SK	TAL SF

## Client Sample ID: B-15C@1

Lab Sample ID: 720-46754-15

Date Collected: 12/18/12 12:10

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			129040	01/18/13 20:50	CDT	TAL SF
Total/NA	Analysis	7471A		1	129126	01/21/13 17:58	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46754-2

**Client Sample ID: B-15C@1**

**Lab Sample ID: 720-46754-15**

Date Collected: 12/18/12 12:10

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		4	129143	01/21/13 23:15	SK	TAL SF

**Client Sample ID: B-15A@4-5**

**Lab Sample ID: 720-46754-20**

Date Collected: 12/18/12 13:13

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		1	129034	01/18/13 18:09	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 23:19	SK	TAL SF

**Client Sample ID: B-5A@4-5**

**Lab Sample ID: 720-46754-22**

Date Collected: 12/18/12 14:02

Matrix: Solid

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		1	129034	01/18/13 18:11	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 23:33	SK	TAL SF

**Laboratory References:**

TAL SF = 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: 720-46754-2

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46754-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF

**Protocol References:**

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

**Laboratory References:**

TAL SF = 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: 720-46754-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46754-3	B-9A@7-8	Solid	12/17/12 15:05	12/18/12 17:00
720-46754-4	B-12A@4-5	Solid	12/17/12 15:45	12/18/12 17:00
720-46754-6	B-8C@4-5	Solid	12/18/12 08:50	12/18/12 17:00
720-46754-9	B-10A@0.5-1	Solid	12/18/12 09:15	12/18/12 17:00
720-46754-15	B-15C@1	Solid	12/18/12 12:10	12/18/12 17:00
720-46754-20	B-15A@4-5	Solid	12/18/12 13:13	12/18/12 17:00
720-46754-22	B-5A@4-5	Solid	12/18/12 14:02	12/18/12 17:00



Message

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720-46754-2

720-46736-2

Sharma, Dimple

**From:** Kris Larson [klarson@ninyoandmoore.com]  
**Sent:** Thursday, January 17, 2013 11:30 AM  
**To:** Sharma, Dimple  
**Cc:** Melissa Terry  
**Subject:** RE: Additional metals analysis for Western Forge & Flange

Dimple,  
Also please analyze Title 22 Metals in sample B8C@4-5.  
Thanks,

Kris M. Larson, P.G.  
Principal Geologist  
**Ninyo & Moore**  
Geotechnical & Environmental Sciences Consultants  
1956 Webster Street, Suite 400  
Oakland, California 94612  
(510) 343-3000 (x5212)  
(510) 343-3001 (Fax)  
(510) 301-9446 (Cell)  
klarson@ninyoandmoore.com

New San Jose office  
2149 O'Toole Avenue, Suite 10  
San Jose, CA 95131  
(408) 435-9000  
(408) 435-9006 (Fax)

**Experience · Quality · Commitment**

-----Original Message-----

**From:** Kris Larson  
**Sent:** Thursday, January 17, 2013 10:49 AM  
**To:** 'dimple.sharma@testamericainc.com'  
**Cc:** Melissa Terry  
**Subject:** Additional metals analysis for Western Forge & Flange

Dimple,  
Please analyze the following samples from your lab reports dated 12/24 to 12/27 for Title 22 Metals using EPA Method 6010B using a normal 5-7 day TAT.

- B22A@4-5
- B10A@0.5-1
- B15C@1
- B9A@7-8
- B12A@4-5
- B15A@4-5
- B5A@4-5
- B24A@4-5

Thanks,

Kris M. Larson, P.G.



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46754-2

**Login Number: 46754**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Tacmo, David**

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	

# 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: 720-46755-1

Client Project/Site: Western Forge & Flange

For:

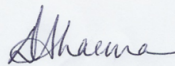
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

12/26/2012 1:46:21 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46755-1

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46755-1

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**Job ID: 720-46755-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46755-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/18/2012 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 1.7° C.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-10A

## Lab Sample ID: 720-46755-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	1100		530		ug/L	1		8015B	Silica Gel Cleanup
Arsenic	0.015		0.010		mg/L	1		6010B	Dissolved
Barium	1.1		0.0050		mg/L	1		6010B	Dissolved
Beryllium	0.0022		0.0020		mg/L	1		6010B	Dissolved
Chromium	0.016		0.010		mg/L	1		6010B	Dissolved
Cobalt	0.014		0.0020		mg/L	1		6010B	Dissolved
Copper	0.069		0.020		mg/L	1		6010B	Dissolved
Lead	0.66		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.053		0.010		mg/L	1		6010B	Dissolved
Nickel	0.025		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.068		0.010		mg/L	1		6010B	Dissolved
Zinc	0.39		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	7600		100		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.40		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-8C

## Lab Sample ID: 720-46755-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	2200		550		ug/L	1		8015B	Silica Gel Cleanup
Barium	0.63		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0020		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.031		0.010		mg/L	1		6010B	Dissolved
Nickel	0.018		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.018		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	2400		13		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	2.1		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-17A

## Lab Sample ID: 720-46755-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.25		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0033		0.0020		mg/L	1		6010B	Dissolved
Lead	0.046		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.16		0.010		mg/L	1		6010B	Dissolved
Nickel	0.010		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.010		0.010		mg/L	1		6010B	Dissolved
Zinc	0.042		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	1200		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.77		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-14A

## Lab Sample ID: 720-46755-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	890		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.76		0.10		ppth	1		SM 2520B	Total/NA

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-15C

## Lab Sample ID: 720-46755-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.32		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0027		0.0020		mg/L	1		6010B	Dissolved
Lead	0.0082		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.083		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.015		0.010		mg/L	1		6010B	Dissolved
Zinc	0.059		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: B-15B

## Lab Sample ID: 720-46755-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.25		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.039		0.010		mg/L	1		6010B	Dissolved
Zinc	0.099		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	690		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.53		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-5A

## Lab Sample ID: 720-46755-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.16		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.013		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.10		0.010		mg/L	1		6010B	Dissolved
Nickel	0.020		0.010		mg/L	1		6010B	Dissolved
Zinc	0.050		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: UG-2

## Lab Sample ID: 720-46755-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.10		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.058		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.040		0.010		mg/L	1		6010B	Dissolved
Zinc	0.022		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	570		10		mg/L	1		SM 2540C	Total/NA
Cr (VI)	8.5		5.0		ug/L	10		7199	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.48		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: UG-1

## Lab Sample ID: 720-46755-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.13		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0053		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.17		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	560		10		mg/L	1		SM 2540C	Total/NA
Cr (VI)	4.9		0.50		ug/L	1		7199	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.47		0.10		ppth	1		SM 2520B	Total/NA

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	1100		530		ug/L		12/19/12 13:48	12/20/12 21:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5				12/19/12 13:48	12/20/12 21:10	1
p-Terphenyl	63		31 - 150				12/19/12 13:48	12/20/12 21:10	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	2200		550		ug/L		12/19/12 13:48	12/20/12 20:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 5				12/19/12 13:48	12/20/12 20:33	1
p-Terphenyl	69		31 - 150				12/19/12 13:48	12/20/12 20:33	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		640		ug/L		12/19/12 13:48	12/20/12 20:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5				12/19/12 13:48	12/20/12 20:09	1
p-Terphenyl	67		31 - 150				12/19/12 13:48	12/20/12 20:09	1

**Client Sample ID: B-14A**  
**Date Collected: 12/18/12 12:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		590		ug/L		12/19/12 13:48	12/20/12 21:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.0006		0 - 5				12/19/12 13:48	12/20/12 21:34	1
p-Terphenyl	63		31 - 150				12/19/12 13:48	12/20/12 21:34	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		560		ug/L		12/19/12 13:48	12/22/12 12:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.009		0 - 5				12/19/12 13:48	12/22/12 12:20	1
p-Terphenyl	67		31 - 150				12/19/12 13:48	12/22/12 12:20	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		680		ug/L		12/19/12 13:48	12/22/12 12:44	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5	12/19/12 13:48	12/22/12 12:44	1
p-Terphenyl	70		31 - 150	12/19/12 13:48	12/22/12 12:44	1

**Client Sample ID: UG-1**

**Date Collected: 12/18/12 15:35**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		570		ug/L		12/19/12 13:48	12/22/12 13:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.007		0 - 5	12/19/12 13:48	12/22/12 13:08	1
p-Terphenyl	78		31 - 150	12/19/12 13:48	12/22/12 13:08	1

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Arsenic</b>	<b>0.015</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Barium</b>	<b>1.1</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:08	1
<b>Beryllium</b>	<b>0.0022</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 22:08	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Chromium</b>	<b>0.016</b>		0.010		mg/L		12/19/12 14:23	12/21/12 22:08	1
<b>Cobalt</b>	<b>0.014</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Copper</b>	<b>0.069</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:08	1
<b>Lead</b>	<b>0.66</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Molybdenum</b>	<b>0.053</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Nickel</b>	<b>0.025</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:21	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:21	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Vanadium</b>	<b>0.068</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Zinc</b>	<b>0.39</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:08	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Barium</b>	<b>0.63</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:13	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:13	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:34	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:13	1
<b>Cobalt</b>	<b>0.0020</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:34	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:13	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Molybdenum</b>	<b>0.031</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Nickel</b>	<b>0.018</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:34	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:34	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Vanadium</b>	<b>0.018</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
Zinc	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:13	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
<b>Barium</b>	<b>0.25</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:17	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:17	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:38	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:17	1
<b>Cobalt</b>	<b>0.0033</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:38	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:17	1

TestAmerica Pleasanton



# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>0.046</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 04:38	1
<b>Molybdenum</b>	<b>0.16</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
<b>Nickel</b>	<b>0.010</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:38	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:38	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
<b>Vanadium</b>	<b>0.010</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
<b>Zinc</b>	<b>0.042</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:17	1

**Client Sample ID: B-15C**  
**Date Collected: 12/18/12 12:30**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
<b>Barium</b>	<b>0.32</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:21	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:21	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:43	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:21	1
<b>Cobalt</b>	<b>0.0027</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:43	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:21	1
<b>Lead</b>	<b>0.0082</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 04:43	1
<b>Molybdenum</b>	<b>0.083</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:43	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:43	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
<b>Vanadium</b>	<b>0.015</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
<b>Zinc</b>	<b>0.059</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:21	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
<b>Barium</b>	<b>0.25</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:26	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:26	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:47	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:26	1
Cobalt	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:47	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:26	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:47	1
<b>Molybdenum</b>	<b>0.039</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:47	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:47	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
<b>Zinc</b>	<b>0.099</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:26	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-5A**  
**Date Collected: 12/18/12 14:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
Arsenic	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Barium</b>	<b>0.16</b>		0.0050		mg/L		12/19/12 14:26	12/21/12 22:39	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 22:39	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 04:51	1
Chromium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 22:39	1
<b>Cobalt</b>	<b>0.013</b>		0.0020		mg/L		12/19/12 14:26	12/21/12 04:51	1
Copper	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:39	1
Lead	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Molybdenum</b>	<b>0.10</b>		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Nickel</b>	<b>0.020</b>		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
Selenium	ND		0.020		mg/L		12/19/12 14:26	12/21/12 04:51	1
Silver	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:51	1
Thallium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
Vanadium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Zinc</b>	<b>0.050</b>		0.020		mg/L		12/19/12 14:26	12/21/12 22:39	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Arsenic	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
<b>Barium</b>	<b>0.10</b>		0.0050		mg/L		12/19/12 14:26	12/21/12 22:43	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 22:43	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 04:56	1
Chromium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 22:43	1
<b>Cobalt</b>	<b>0.058</b>		0.0020		mg/L		12/19/12 14:26	12/21/12 04:56	1
Copper	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:43	1
Lead	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:56	1
<b>Molybdenum</b>	<b>0.040</b>		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Nickel	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Selenium	ND		0.020		mg/L		12/19/12 14:26	12/21/12 04:56	1
Silver	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:56	1
Thallium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Vanadium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
<b>Zinc</b>	<b>0.022</b>		0.020		mg/L		12/19/12 14:26	12/21/12 22:43	1

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Arsenic	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
<b>Barium</b>	<b>0.13</b>		0.0050		mg/L		12/19/12 14:26	12/21/12 22:47	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 22:47	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 05:00	1
Chromium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 22:47	1
<b>Cobalt</b>	<b>0.0053</b>		0.0020		mg/L		12/19/12 14:26	12/21/12 05:00	1
Copper	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:47	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: UG-1  
Date Collected: 12/18/12 15:35  
Date Received: 12/18/12 17:00

Lab Sample ID: 720-46755-9  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 05:00	1
<b>Molybdenum</b>	<b>0.17</b>		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Nickel	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Selenium	ND		0.020		mg/L		12/19/12 14:26	12/21/12 05:00	1
Silver	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 05:00	1
Thallium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Vanadium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Zinc	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:47	1

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 7470A - Mercury (CVAA) - Dissolved

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:35	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:44	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:46	1

**Client Sample ID: B-15C**  
**Date Collected: 12/18/12 12:30**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:50	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 16:52	1

**Client Sample ID: B-5A**  
**Date Collected: 12/18/12 14:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 16:54	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 16:57	1

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:01	1

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## General Chemistry

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7600		100		mg/L			12/24/12 13:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.40		0.10		ppth			12/20/12 13:18	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2400		13		mg/L			12/21/12 20:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.1		0.10		ppth			12/20/12 13:19	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10		mg/L			12/21/12 20:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.77		0.10		ppth			12/20/12 13:21	1

**Client Sample ID: B-14A**  
**Date Collected: 12/18/12 12:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/21/12 20:56	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.76		0.10		ppth			12/20/12 13:22	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	690		10		mg/L			12/21/12 20:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.53		0.10		ppth			12/20/12 13:24	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	570		10		mg/L			12/21/12 21:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.48		0.10		ppth			12/20/12 13:29	1

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	560		10		mg/L			12/21/12 21:04	1

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# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.47		0.10		ppth			12/20/12 13:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## General Chemistry - Dissolved

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:05	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:17	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:29	1

**Client Sample ID: B-14A**  
**Date Collected: 12/18/12 12:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:40	1

**Client Sample ID: B-15C**  
**Date Collected: 12/18/12 12:30**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:52	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 22:30	1

**Client Sample ID: B-5A**  
**Date Collected: 12/18/12 14:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 22:42	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	8.5		5.0		ug/L			12/18/12 23:40	10

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	4.9		0.50		ug/L			12/18/12 23:05	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

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

**Lab Sample ID: MB 720-127398/1-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		500		ug/L		12/19/12 13:48	12/20/12 14:49	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5				12/19/12 13:48	12/20/12 14:49	1
p-Terphenyl	97		31 - 150				12/19/12 13:48	12/20/12 14:49	1

**Lab Sample ID: LCS 720-127398/2-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1830		ug/L		73	32 - 119
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
p-Terphenyl		90		31 - 150			

**Lab Sample ID: LCSD 720-127398/3-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	2500	1790		ug/L		71	32 - 119	2	35
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
p-Terphenyl		92		31 - 150					

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 720-127402/2-A**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.03		mg/L		103	80 - 120
Arsenic	1.00	1.05		mg/L		105	80 - 120
Cadmium	1.00	0.947		mg/L		95	80 - 120
Cobalt	1.00	1.05		mg/L		105	80 - 120
Lead	1.00	0.997		mg/L		100	80 - 120
Molybdenum	1.00	0.972		mg/L		97	80 - 120
Nickel	1.00	0.991		mg/L		99	80 - 120
Selenium	1.00	0.882		mg/L		88	80 - 120
Silver	0.500	0.522		mg/L		104	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120
Vanadium	1.00	1.06		mg/L		106	80 - 120

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# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 720-127402/2-A**  
**Matrix: Water**  
**Analysis Batch: 127648**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.945		mg/L		94	80 - 120
Beryllium	1.00	0.964		mg/L		96	80 - 120
Chromium	1.00	0.960		mg/L		96	80 - 120
Copper	1.00	0.974		mg/L		97	80 - 120
Zinc	1.00	0.963		mg/L		96	80 - 120

**Lab Sample ID: LCSD 720-127402/3-A**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	1.03		mg/L		103	80 - 120	0	20
Arsenic	1.00	1.05		mg/L		105	80 - 120	0	20
Cadmium	1.00	0.953		mg/L		95	80 - 120	1	20
Cobalt	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	1.00	1.00		mg/L		100	80 - 120	0	20
Molybdenum	1.00	0.978		mg/L		98	80 - 120	1	20
Nickel	1.00	0.995		mg/L		99	80 - 120	0	20
Selenium	1.00	0.892		mg/L		89	80 - 120	1	20
Silver	0.500	0.530		mg/L		106	80 - 120	1	20
Thallium	1.00	1.01		mg/L		101	80 - 120	0	20
Vanadium	1.00	1.07		mg/L		107	80 - 120	1	20

**Lab Sample ID: LCSD 720-127402/3-A**  
**Matrix: Water**  
**Analysis Batch: 127648**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.954		mg/L		95	80 - 120	1	20
Beryllium	1.00	0.978		mg/L		98	80 - 120	1	20
Chromium	1.00	0.968		mg/L		97	80 - 120	1	20
Copper	1.00	0.985		mg/L		98	80 - 120	1	20
Zinc	1.00	0.974		mg/L		97	80 - 120	1	20

**Lab Sample ID: MB 720-127392/1-B**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 127402**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:16	1
Cobalt	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:16	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:16	1
Molybdenum	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:16	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:16	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-127392/1-B  
 Matrix: Water  
 Analysis Batch: 127550

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1

Lab Sample ID: MB 720-127392/1-B  
 Matrix: Water  
 Analysis Batch: 127648

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 22:04	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:04	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:04	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:04	1
Zinc	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:04	1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 720-127478/2-A  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 127478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.0109		mg/L		109	85 - 115

Lab Sample ID: LCSD 720-127478/3-A  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 127478

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0105		mg/L		105	85 - 115	4	20

Lab Sample ID: MB 720-127392/1-C  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:31	1

Lab Sample ID: MB 720-127441/1-C  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:04	1

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 720-127411/1-A  
Matrix: Water  
Analysis Batch: 127326

Client Sample ID: Method Blank  
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 14:48	1

Lab Sample ID: LCS 720-127411/2-A  
Matrix: Water  
Analysis Batch: 127326

Client Sample ID: Lab Control Sample  
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	1.95		ug/L		98	90 - 110

## Method: SM 2520B - Salinity

Lab Sample ID: MB 720-127494/3  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.10		ppth			12/20/12 13:09	1

Lab Sample ID: LCS 720-127494/4  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Salinity	35.0	36.6		ppth		104	90 - 110

Lab Sample ID: LCSD 720-127494/5  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Salinity	35.0	36.5		ppth		104	90 - 110	0	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-173777/1  
Matrix: Water  
Analysis Batch: 173777

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			12/21/12 20:11	1

Lab Sample ID: LCS 500-173777/2  
Matrix: Water  
Analysis Batch: 173777

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	294		mg/L		118	80 - 120

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: MB 500-173842/1**  
**Matrix: Water**  
**Analysis Batch: 173842**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			12/24/12 12:36	1

**Lab Sample ID: LCS 500-173842/2**  
**Matrix: Water**  
**Analysis Batch: 173842**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	288		mg/L		115	80 - 120



# QC Association Summary

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

TestAmerica Job ID: 720-46755-1

## GC Semi VOA

### Prep Batch: 127398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Silica Gel Cleanup	Water	3510C SGC	
720-46755-2	B-8C	Silica Gel Cleanup	Water	3510C SGC	
720-46755-3	B-17A	Silica Gel Cleanup	Water	3510C SGC	
720-46755-4	B-14A	Silica Gel Cleanup	Water	3510C SGC	
720-46755-6	B-15B	Silica Gel Cleanup	Water	3510C SGC	
720-46755-8	UG-2	Silica Gel Cleanup	Water	3510C SGC	
720-46755-9	UG-1	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

### Analysis Batch: 127448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Silica Gel Cleanup	Water	8015B	127398
720-46755-2	B-8C	Silica Gel Cleanup	Water	8015B	127398
720-46755-3	B-17A	Silica Gel Cleanup	Water	8015B	127398
720-46755-4	B-14A	Silica Gel Cleanup	Water	8015B	127398

### Analysis Batch: 127449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	127398
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	127398
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	127398

### Analysis Batch: 127604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-6	B-15B	Silica Gel Cleanup	Water	8015B	127398
720-46755-8	UG-2	Silica Gel Cleanup	Water	8015B	127398
720-46755-9	UG-1	Silica Gel Cleanup	Water	8015B	127398

## Metals

### Prep Batch: 127402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	3005A	
720-46755-2	B-8C	Dissolved	Water	3005A	
720-46755-3	B-17A	Dissolved	Water	3005A	
720-46755-5	B-15C	Dissolved	Water	3005A	
720-46755-6	B-15B	Dissolved	Water	3005A	
720-46755-7	B-5A	Dissolved	Water	3005A	
720-46755-8	UG-2	Dissolved	Water	3005A	
720-46755-9	UG-1	Dissolved	Water	3005A	
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-127392/1-B	Method Blank	Dissolved	Water	3005A	

### Prep Batch: 127478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	7470A	
720-46755-2	B-8C	Dissolved	Water	7470A	

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46755-1

## Metals (Continued)

### Prep Batch: 127478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-3	B-17A	Dissolved	Water	7470A	
720-46755-5	B-15C	Dissolved	Water	7470A	
720-46755-6	B-15B	Dissolved	Water	7470A	
720-46755-7	B-5A	Dissolved	Water	7470A	
720-46755-8	UG-2	Dissolved	Water	7470A	
720-46755-9	UG-1	Dissolved	Water	7470A	
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-127392/1-C	Method Blank	Dissolved	Water	7470A	
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	

### Analysis Batch: 127515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	7470A	127478
720-46755-2	B-8C	Dissolved	Water	7470A	127478
720-46755-3	B-17A	Dissolved	Water	7470A	127478
720-46755-5	B-15C	Dissolved	Water	7470A	127478
720-46755-6	B-15B	Dissolved	Water	7470A	127478
720-46755-7	B-5A	Dissolved	Water	7470A	127478
720-46755-8	UG-2	Dissolved	Water	7470A	127478
720-46755-9	UG-1	Dissolved	Water	7470A	127478
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	127478
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	127478
MB 720-127392/1-C	Method Blank	Dissolved	Water	7470A	127478
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	127478

### Analysis Batch: 127550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	6010B	127402
720-46755-2	B-8C	Dissolved	Water	6010B	127402
720-46755-3	B-17A	Dissolved	Water	6010B	127402
720-46755-5	B-15C	Dissolved	Water	6010B	127402
720-46755-6	B-15B	Dissolved	Water	6010B	127402
720-46755-7	B-5A	Dissolved	Water	6010B	127402
720-46755-8	UG-2	Dissolved	Water	6010B	127402
720-46755-9	UG-1	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127392/1-B	Method Blank	Dissolved	Water	6010B	127402

### Analysis Batch: 127648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	6010B	127402
720-46755-2	B-8C	Dissolved	Water	6010B	127402
720-46755-3	B-17A	Dissolved	Water	6010B	127402
720-46755-5	B-15C	Dissolved	Water	6010B	127402
720-46755-6	B-15B	Dissolved	Water	6010B	127402
720-46755-7	B-5A	Dissolved	Water	6010B	127402
720-46755-8	UG-2	Dissolved	Water	6010B	127402
720-46755-9	UG-1	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46755-1

## Metals (Continued)

### Analysis Batch: 127648 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS D 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127392/1-B	Method Blank	Dissolved	Water	6010B	127402

## General Chemistry

### Analysis Batch: 127326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	7199	
720-46755-2	B-8C	Dissolved	Water	7199	
720-46755-3	B-17A	Dissolved	Water	7199	
720-46755-4	B-14A	Dissolved	Water	7199	
720-46755-5	B-15C	Dissolved	Water	7199	
720-46755-6	B-15B	Dissolved	Water	7199	
720-46755-7	B-5A	Dissolved	Water	7199	
720-46755-8	UG-2	Dissolved	Water	7199	
720-46755-9	UG-1	Dissolved	Water	7199	
LCS 720-127411/2-A	Lab Control Sample	Dissolved	Water	7199	
MB 720-127411/1-A	Method Blank	Dissolved	Water	7199	

### Analysis Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Total/NA	Water	SM 2520B	
720-46755-2	B-8C	Total/NA	Water	SM 2520B	
720-46755-3	B-17A	Total/NA	Water	SM 2520B	
720-46755-4	B-14A	Total/NA	Water	SM 2520B	
720-46755-6	B-15B	Total/NA	Water	SM 2520B	
720-46755-8	UG-2	Total/NA	Water	SM 2520B	
720-46755-9	UG-1	Total/NA	Water	SM 2520B	
LCS 720-127494/4	Lab Control Sample	Total/NA	Water	SM 2520B	
LCS D 720-127494/5	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
MB 720-127494/3	Method Blank	Total/NA	Water	SM 2520B	

### Analysis Batch: 173777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-2	B-8C	Total/NA	Water	SM 2540C	
720-46755-3	B-17A	Total/NA	Water	SM 2540C	
720-46755-4	B-14A	Total/NA	Water	SM 2540C	
720-46755-6	B-15B	Total/NA	Water	SM 2540C	
720-46755-8	UG-2	Total/NA	Water	SM 2540C	
720-46755-9	UG-1	Total/NA	Water	SM 2540C	
LCS 500-173777/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-173777/1	Method Blank	Total/NA	Water	SM 2540C	

### Analysis Batch: 173842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Total/NA	Water	SM 2540C	
LCS 500-173842/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-173842/1	Method Blank	Total/NA	Water	SM 2540C	

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-10A

Date Collected: 12/18/12 09:33

Date Received: 12/18/12 17:00

## Lab Sample ID: 720-46755-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 21:10	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:35	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:21	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:08	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173842	12/24/12 13:15	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:05	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:18	MJK	TAL SF

## Client Sample ID: B-8C

Date Collected: 12/18/12 10:50

Date Received: 12/18/12 17:00

## Lab Sample ID: 720-46755-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 20:33	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:44	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:34	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:13	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:51	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:17	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:19	MJK	TAL SF

## Client Sample ID: B-17A

Date Collected: 12/18/12 11:00

Date Received: 12/18/12 17:00

## Lab Sample ID: 720-46755-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 20:09	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:46	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:38	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:17	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:53	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:29	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:21	MJK	TAL SF

TestAmerica Pleasanton



# Lab Chronicle

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-14A

Lab Sample ID: 720-46755-4

Date Collected: 12/18/12 12:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 21:34	JZ	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:56	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:40	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:22	MJK	TAL SF

## Client Sample ID: B-15C

Lab Sample ID: 720-46755-5

Date Collected: 12/18/12 12:30

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:50	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:43	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:21	CAM	TAL SF
Dissolved	Analysis	7199		1	127326	12/18/12 21:52	EYT	TAL SF

## Client Sample ID: B-15B

Lab Sample ID: 720-46755-6

Date Collected: 12/18/12 13:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127604	12/22/12 12:20	DH	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:52	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:47	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:26	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:59	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 22:30	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:24	MJK	TAL SF

## Client Sample ID: B-5A

Lab Sample ID: 720-46755-7

Date Collected: 12/18/12 14:13

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:54	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:26	ET	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46755-1

**Client Sample ID: B-5A**

**Lab Sample ID: 720-46755-7**

Date Collected: 12/18/12 14:13

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	127550	12/21/12 04:51	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:39	CAM	TAL SF
Dissolved	Analysis	7199		1	127326	12/18/12 22:42	EYT	TAL SF

**Client Sample ID: UG-2**

**Lab Sample ID: 720-46755-8**

Date Collected: 12/18/12 15:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127604	12/22/12 12:44	DH	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:57	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:26	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:56	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:43	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 21:01	CLB	TAL CHI
Dissolved	Analysis	7199		10	127326	12/18/12 23:40	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:29	MJK	TAL SF

**Client Sample ID: UG-1**

**Lab Sample ID: 720-46755-9**

Date Collected: 12/18/12 15:35

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127604	12/22/12 13:08	DH	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:01	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:26	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 05:00	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:47	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 21:04	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 23:05	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:30	MJK	TAL SF

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SF = 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: 720-46755-1

## 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

## Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-12
Kentucky (UST)	State Program	4	66	04-11-13
L-A-B	DoD ELAP		L2304	01-06-13
L-A-B	ISO/IEC 17025		L2304	01-06-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-13
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

# Method Summary

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

TestAmerica Job ID: 720-46755-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7470A	Mercury (CVAA)	SW846	TAL SF
7199	Chromium, Hexavalent (IC)	SW846	TAL SF
SM 2520B	Salinity	SM	TAL SF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SF = 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: 720-46755-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46755-1	B-10A	Water	12/18/12 09:33	12/18/12 17:00
720-46755-2	B-8C	Water	12/18/12 10:50	12/18/12 17:00
720-46755-3	B-17A	Water	12/18/12 11:00	12/18/12 17:00
720-46755-4	B-14A	Water	12/18/12 12:00	12/18/12 17:00
720-46755-5	B-15C	Water	12/18/12 12:30	12/18/12 17:00
720-46755-6	B-15B	Water	12/18/12 13:00	12/18/12 17:00
720-46755-7	B-5A	Water	12/18/12 14:13	12/18/12 17:00
720-46755-8	UG-2	Water	12/18/12 15:00	12/18/12 17:00
720-46755-9	UG-1	Water	12/18/12 15:35	12/18/12 17:00



Regulatory Program:  DW  NPDES  RCRA  Other:

143049

<b>Client Contact</b> Your Company Name here: <u>Niyo &amp; Moore</u> Address: <u>1956 Webster St. # 400</u> City/State/Zip: <u>Dakland CA 94612</u> (xxx) xxx-xxxx: <u>510.343.3000</u> Phone (xxx) xxx-xxxx: <u>.9001</u> FAX Project Name: <u>Western Forge &amp; Flange</u> Site: <u>590 Cleveland Ave, Albany, CA</u> P O #: <u>401 823 001</u>		<b>Project Manager:</b> <u>Melissa Terry</u> Tel/Fax: <u>510.343.3000</u> <b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) _____ TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> _____ Date: _____ <b>Lab Contact:</b> _____ Carrier: _____		COC No: _____ of _____ COCs <b>For Lab Use Only:</b> Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____	
--	--	---	--	--	--	--	--

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Composite = C / Grab = G	TPH - no	Hexavalent Chromium	Title 22 Metals	Salinity / TDS	Sample Specific Notes:
B-10A	12/18/12	0933		Water	4			X	X	X	X	
B-8C		1050			4			X	X	X	X	
B-17A		1100			4			X	X	X	X	
B-14A		1200			3			X	X	X	X	
B-15C		1230			2			X	X	X	X	
B-15B		1300			4			X	X	X	X	
B-5A		1413			2			X	X	X	X	
UG-2		1500			4			X	X	X	X	
UG-1		1535			4			X	X	X	X	

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:

TPH-hydraulic oil by 8015M w/silicagel cleanup  
 Hexavalent chromium by 7196A  
 Title 22 Metals by 6010B  
 Salinity / TDS by SM2520B/160.1 1.5° 1.7°

Relinquished by: <u>Melissa Terry M Terry</u>	Company: <u>Niyo &amp; Moore</u>	Date/Time: <u>12/18 1545</u>	Received by: <u>[Signature]</u>	Company: <u>TRSF</u>	Date/Time: <u>12-18-12 1045</u>
Relinquished by: <u>[Signature]</u>	Company: <u>TRSF</u>	Date/Time: <u>12-18-12 1700</u>	Received by: _____	Company: _____	Date/Time: _____
Relinquished by: _____	Company: _____	Date/Time: _____	Received in Laboratory by: <u>John Miller</u>	Company: <u>Test America</u>	Date/Time: <u>12-18-12 1700</u>

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46755-1

**Login Number: 46755**

**List Number: 1**

**Creator: Mullen, Joan**

**List Source: TestAmerica Pleasanton**

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	

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46755-1

**Login Number: 46755**

**List Number: 1**

**Creator: Lunt, Jeff T**

**List Source: TestAmerica Chicago**

**List Creation: 12/20/12 11:40 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
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.	True	



# 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: 720-46755-1

Client Project/Site: Western Forge & Flange

Revision: 1

For:

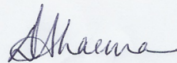
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/22/2013 5:12:01 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

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

TestAmerica Job ID: 720-46755-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46755-1

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**Job ID: 720-46755-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46755-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/18/2012 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 1.7° C.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-10A

## Lab Sample ID: 720-46755-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	1100		530	39	ug/L	1		8015B	Silica Gel Cleanup
Arsenic	0.015		0.010		mg/L	1		6010B	Dissolved
Barium	1.1		0.0050		mg/L	1		6010B	Dissolved
Beryllium	0.0022		0.0020		mg/L	1		6010B	Dissolved
Chromium	0.016		0.010		mg/L	1		6010B	Dissolved
Cobalt	0.014		0.0020		mg/L	1		6010B	Dissolved
Copper	0.069		0.020		mg/L	1		6010B	Dissolved
Lead	0.66		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.053		0.010		mg/L	1		6010B	Dissolved
Nickel	0.025		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.068		0.010		mg/L	1		6010B	Dissolved
Zinc	0.39		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	7600		100		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.40		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-8C

## Lab Sample ID: 720-46755-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	2200		550	41	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.63		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0020		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.031		0.010		mg/L	1		6010B	Dissolved
Nickel	0.018		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.018		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	2400		13		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	2.1		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-17A

## Lab Sample ID: 720-46755-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	180	J	640	48	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.25		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0033		0.0020		mg/L	1		6010B	Dissolved
Lead	0.046		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.16		0.010		mg/L	1		6010B	Dissolved
Nickel	0.010		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.010		0.010		mg/L	1		6010B	Dissolved
Zinc	0.042		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	1200		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.77		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-14A

## Lab Sample ID: 720-46755-4

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-14A (Continued)

## Lab Sample ID: 720-46755-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	45	J	590	44	ug/L	1		8015B	Silica Gel Cleanup
Total Dissolved Solids	890		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.76		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-15C

## Lab Sample ID: 720-46755-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.32		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0027		0.0020		mg/L	1		6010B	Dissolved
Lead	0.0082		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.083		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.015		0.010		mg/L	1		6010B	Dissolved
Zinc	0.059		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: B-15B

## Lab Sample ID: 720-46755-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	69	J	560	41	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.25		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.039		0.010		mg/L	1		6010B	Dissolved
Zinc	0.099		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	690		10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.53		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-5A

## Lab Sample ID: 720-46755-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.16		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.013		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.10		0.010		mg/L	1		6010B	Dissolved
Nickel	0.020		0.010		mg/L	1		6010B	Dissolved
Zinc	0.050		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: UG-2

## Lab Sample ID: 720-46755-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	140	J	680	50	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.10		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.058		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.040		0.010		mg/L	1		6010B	Dissolved
Zinc	0.022		0.020		mg/L	1		6010B	Dissolved
Total Dissolved Solids	570		10		mg/L	1		SM 2540C	Total/NA
Cr (VI)	8.5		5.0		ug/L	10		7199	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.48		0.10		ppth	1		SM 2520B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

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

TestAmerica Job ID: 720-46755-1

**Client Sample ID: UG-1**

**Lab Sample ID: 720-46755-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	150	J	570	42	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.13		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0053		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.17		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	560		10		mg/L	1		SM 2540C	Total/NA
Cr (VI)	4.9		0.50		ug/L	1		7199	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.47		0.10		ppth	1		SM 2520B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton



# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	1100		530	39	ug/L		12/19/12 13:48	12/20/12 21:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5				12/19/12 13:48	12/20/12 21:10	1
p-Terphenyl	63		31 - 150				12/19/12 13:48	12/20/12 21:10	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	2200		550	41	ug/L		12/19/12 13:48	12/20/12 20:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 5				12/19/12 13:48	12/20/12 20:33	1
p-Terphenyl	69		31 - 150				12/19/12 13:48	12/20/12 20:33	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	180	J	640	48	ug/L		12/19/12 13:48	12/20/12 20:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5				12/19/12 13:48	12/20/12 20:09	1
p-Terphenyl	67		31 - 150				12/19/12 13:48	12/20/12 20:09	1

**Client Sample ID: B-14A**  
**Date Collected: 12/18/12 12:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	45	J	590	44	ug/L		12/19/12 13:48	12/20/12 21:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.0006		0 - 5				12/19/12 13:48	12/20/12 21:34	1
p-Terphenyl	63		31 - 150				12/19/12 13:48	12/20/12 21:34	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	69	J	560	41	ug/L		12/19/12 13:48	12/22/12 12:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.009		0 - 5				12/19/12 13:48	12/22/12 12:20	1
p-Terphenyl	67		31 - 150				12/19/12 13:48	12/22/12 12:20	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	140	J	680	50	ug/L		12/19/12 13:48	12/22/12 12:44	1

TestAmerica Pleasanton



# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5	12/19/12 13:48	12/22/12 12:44	1
p-Terphenyl	70		31 - 150	12/19/12 13:48	12/22/12 12:44	1

**Client Sample ID: UG-1**

**Date Collected: 12/18/12 15:35**

**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH-Hydraulic Oil Range (C19-C36)</b>	<b>150</b>	<b>J</b>	570	42	ug/L		12/19/12 13:48	12/22/12 13:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.007		0 - 5	12/19/12 13:48	12/22/12 13:08	1
p-Terphenyl	78		31 - 150	12/19/12 13:48	12/22/12 13:08	1

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Arsenic</b>	<b>0.015</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Barium</b>	<b>1.1</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:08	1
<b>Beryllium</b>	<b>0.0022</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 22:08	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Chromium</b>	<b>0.016</b>		0.010		mg/L		12/19/12 14:23	12/21/12 22:08	1
<b>Cobalt</b>	<b>0.014</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Copper</b>	<b>0.069</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:08	1
<b>Lead</b>	<b>0.66</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Molybdenum</b>	<b>0.053</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Nickel</b>	<b>0.025</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:21	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:21	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Vanadium</b>	<b>0.068</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:21	1
<b>Zinc</b>	<b>0.39</b>		0.020		mg/L		12/19/12 14:23	12/21/12 22:08	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Barium</b>	<b>0.63</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:13	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:13	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:34	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:13	1
<b>Cobalt</b>	<b>0.0020</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:34	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:13	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Molybdenum</b>	<b>0.031</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Nickel</b>	<b>0.018</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:34	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:34	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
<b>Vanadium</b>	<b>0.018</b>		0.010		mg/L		12/19/12 14:23	12/21/12 04:34	1
Zinc	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:13	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
<b>Barium</b>	<b>0.25</b>		0.0050		mg/L		12/19/12 14:23	12/21/12 22:17	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:17	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:38	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:17	1
<b>Cobalt</b>	<b>0.0033</b>		0.0020		mg/L		12/19/12 14:23	12/21/12 04:38	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:17	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.046		0.0050		mg/L		12/19/12 14:23	12/21/12 04:38	1
Molybdenum	0.16		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Nickel	0.010		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:38	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:38	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Vanadium	0.010		0.010		mg/L		12/19/12 14:23	12/21/12 04:38	1
Zinc	0.042		0.020		mg/L		12/19/12 14:23	12/21/12 22:17	1

**Client Sample ID: B-15C**  
**Date Collected: 12/18/12 12:30**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Barium	0.32		0.0050		mg/L		12/19/12 14:23	12/21/12 22:21	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:21	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:43	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:21	1
Cobalt	0.0027		0.0020		mg/L		12/19/12 14:23	12/21/12 04:43	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:21	1
Lead	0.0082		0.0050		mg/L		12/19/12 14:23	12/21/12 04:43	1
Molybdenum	0.083		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:43	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:43	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Vanadium	0.015		0.010		mg/L		12/19/12 14:23	12/21/12 04:43	1
Zinc	0.059		0.020		mg/L		12/19/12 14:23	12/21/12 22:21	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Barium	0.25		0.0050		mg/L		12/19/12 14:23	12/21/12 22:26	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:26	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:47	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:26	1
Cobalt	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:47	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:26	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:47	1
Molybdenum	0.039		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:47	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:47	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:47	1
Zinc	0.099		0.020		mg/L		12/19/12 14:23	12/21/12 22:26	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-5A**  
**Date Collected: 12/18/12 14:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
Arsenic	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Barium</b>	<b>0.16</b>		0.0050		mg/L		12/19/12 14:26	12/21/12 22:39	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 22:39	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 04:51	1
Chromium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 22:39	1
<b>Cobalt</b>	<b>0.013</b>		0.0020		mg/L		12/19/12 14:26	12/21/12 04:51	1
Copper	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:39	1
Lead	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Molybdenum</b>	<b>0.10</b>		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Nickel</b>	<b>0.020</b>		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
Selenium	ND		0.020		mg/L		12/19/12 14:26	12/21/12 04:51	1
Silver	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:51	1
Thallium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
Vanadium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:51	1
<b>Zinc</b>	<b>0.050</b>		0.020		mg/L		12/19/12 14:26	12/21/12 22:39	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Arsenic	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
<b>Barium</b>	<b>0.10</b>		0.0050		mg/L		12/19/12 14:26	12/21/12 22:43	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 22:43	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 04:56	1
Chromium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 22:43	1
<b>Cobalt</b>	<b>0.058</b>		0.0020		mg/L		12/19/12 14:26	12/21/12 04:56	1
Copper	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:43	1
Lead	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:56	1
<b>Molybdenum</b>	<b>0.040</b>		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Nickel	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Selenium	ND		0.020		mg/L		12/19/12 14:26	12/21/12 04:56	1
Silver	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 04:56	1
Thallium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
Vanadium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 04:56	1
<b>Zinc</b>	<b>0.022</b>		0.020		mg/L		12/19/12 14:26	12/21/12 22:43	1

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Arsenic	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
<b>Barium</b>	<b>0.13</b>		0.0050		mg/L		12/19/12 14:26	12/21/12 22:47	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 22:47	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:26	12/21/12 05:00	1
Chromium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 22:47	1
<b>Cobalt</b>	<b>0.0053</b>		0.0020		mg/L		12/19/12 14:26	12/21/12 05:00	1
Copper	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:47	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: UG-1  
Date Collected: 12/18/12 15:35  
Date Received: 12/18/12 17:00

Lab Sample ID: 720-46755-9  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 05:00	1
<b>Molybdenum</b>	<b>0.17</b>		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Nickel	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Selenium	ND		0.020		mg/L		12/19/12 14:26	12/21/12 05:00	1
Silver	ND		0.0050		mg/L		12/19/12 14:26	12/21/12 05:00	1
Thallium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Vanadium	ND		0.010		mg/L		12/19/12 14:26	12/21/12 05:00	1
Zinc	ND		0.020		mg/L		12/19/12 14:26	12/21/12 22:47	1

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 7470A - Mercury (CVAA) - Dissolved

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:35	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:44	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:46	1

**Client Sample ID: B-15C**  
**Date Collected: 12/18/12 12:30**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:50	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 16:52	1

**Client Sample ID: B-5A**  
**Date Collected: 12/18/12 14:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 16:54	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 16:57	1

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:01	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## General Chemistry

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7600		100		mg/L			12/24/12 13:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.40		0.10		ppth			12/20/12 13:18	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2400		13		mg/L			12/21/12 20:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.1		0.10		ppth			12/20/12 13:19	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10		mg/L			12/21/12 20:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.77		0.10		ppth			12/20/12 13:21	1

**Client Sample ID: B-14A**  
**Date Collected: 12/18/12 12:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/21/12 20:56	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.76		0.10		ppth			12/20/12 13:22	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	690		10		mg/L			12/21/12 20:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.53		0.10		ppth			12/20/12 13:24	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	570		10		mg/L			12/21/12 21:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.48		0.10		ppth			12/20/12 13:29	1

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	560		10		mg/L			12/21/12 21:04	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.47		0.10		ppth			12/20/12 13:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



# Client Sample Results

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

TestAmerica Job ID: 720-46755-1

## General Chemistry - Dissolved

**Client Sample ID: B-10A**  
**Date Collected: 12/18/12 09:33**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:05	1

**Client Sample ID: B-8C**  
**Date Collected: 12/18/12 10:50**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:17	1

**Client Sample ID: B-17A**  
**Date Collected: 12/18/12 11:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:29	1

**Client Sample ID: B-14A**  
**Date Collected: 12/18/12 12:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-4**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:40	1

**Client Sample ID: B-15C**  
**Date Collected: 12/18/12 12:30**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-5**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 21:52	1

**Client Sample ID: B-15B**  
**Date Collected: 12/18/12 13:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 22:30	1

**Client Sample ID: B-5A**  
**Date Collected: 12/18/12 14:13**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-7**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 22:42	1

**Client Sample ID: UG-2**  
**Date Collected: 12/18/12 15:00**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-8**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	8.5		5.0		ug/L			12/18/12 23:40	10

**Client Sample ID: UG-1**  
**Date Collected: 12/18/12 15:35**  
**Date Received: 12/18/12 17:00**

**Lab Sample ID: 720-46755-9**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	4.9		0.50		ug/L			12/18/12 23:05	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

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

**Lab Sample ID: MB 720-127398/1-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		500	37	ug/L		12/19/12 13:48	12/20/12 14:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5	12/19/12 13:48	12/20/12 14:49	1
p-Terphenyl	97		31 - 150	12/19/12 13:48	12/20/12 14:49	1

**Lab Sample ID: LCS 720-127398/2-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1830		ug/L		73	32 - 119

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	90		31 - 150

**Lab Sample ID: LCSD 720-127398/3-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	2500	1790		ug/L		71	32 - 119	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	92		31 - 150

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 720-127402/2-A**  
**Matrix: Water**  
**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.03		mg/L		103	80 - 120
Arsenic	1.00	1.05		mg/L		105	80 - 120
Cadmium	1.00	0.947		mg/L		95	80 - 120
Cobalt	1.00	1.05		mg/L		105	80 - 120
Lead	1.00	0.997		mg/L		100	80 - 120
Molybdenum	1.00	0.972		mg/L		97	80 - 120
Nickel	1.00	0.991		mg/L		99	80 - 120
Selenium	1.00	0.882		mg/L		88	80 - 120
Silver	0.500	0.522		mg/L		104	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120
Vanadium	1.00	1.06		mg/L		106	80 - 120

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 720-127402/2-A**

**Matrix: Water**

**Analysis Batch: 127648**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 127402**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	0.945		mg/L		94	80 - 120
Beryllium	1.00	0.964		mg/L		96	80 - 120
Chromium	1.00	0.960		mg/L		96	80 - 120
Copper	1.00	0.974		mg/L		97	80 - 120
Zinc	1.00	0.963		mg/L		96	80 - 120

**Lab Sample ID: LCSD 720-127402/3-A**

**Matrix: Water**

**Analysis Batch: 127550**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total Recoverable**

**Prep Batch: 127402**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	1.03		mg/L		103	80 - 120	0	20
Arsenic	1.00	1.05		mg/L		105	80 - 120	0	20
Cadmium	1.00	0.953		mg/L		95	80 - 120	1	20
Cobalt	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	1.00	1.00		mg/L		100	80 - 120	0	20
Molybdenum	1.00	0.978		mg/L		98	80 - 120	1	20
Nickel	1.00	0.995		mg/L		99	80 - 120	0	20
Selenium	1.00	0.892		mg/L		89	80 - 120	1	20
Silver	0.500	0.530		mg/L		106	80 - 120	1	20
Thallium	1.00	1.01		mg/L		101	80 - 120	0	20
Vanadium	1.00	1.07		mg/L		107	80 - 120	1	20

**Lab Sample ID: LCSD 720-127402/3-A**

**Matrix: Water**

**Analysis Batch: 127648**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total Recoverable**

**Prep Batch: 127402**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	1.00	0.954		mg/L		95	80 - 120	1	20
Beryllium	1.00	0.978		mg/L		98	80 - 120	1	20
Chromium	1.00	0.968		mg/L		97	80 - 120	1	20
Copper	1.00	0.985		mg/L		98	80 - 120	1	20
Zinc	1.00	0.974		mg/L		97	80 - 120	1	20

**Lab Sample ID: MB 720-127392/1-B**

**Matrix: Water**

**Analysis Batch: 127550**

**Client Sample ID: Method Blank**

**Prep Type: Dissolved**

**Prep Batch: 127402**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Arsenic	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Cadmium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:16	1
Cobalt	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 04:16	1
Lead	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:16	1
Molybdenum	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Nickel	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1
Selenium	ND		0.020		mg/L		12/19/12 14:23	12/21/12 04:16	1
Silver	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 04:16	1
Thallium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-127392/1-B  
Matrix: Water  
Analysis Batch: 127550

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 04:16	1

Lab Sample ID: MB 720-127392/1-B  
Matrix: Water  
Analysis Batch: 127648

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0050		mg/L		12/19/12 14:23	12/21/12 22:04	1
Beryllium	ND		0.0020		mg/L		12/19/12 14:23	12/21/12 22:04	1
Chromium	ND		0.010		mg/L		12/19/12 14:23	12/21/12 22:04	1
Copper	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:04	1
Zinc	ND		0.020		mg/L		12/19/12 14:23	12/21/12 22:04	1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 720-127478/2-A  
Matrix: Water  
Analysis Batch: 127515

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 127478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.0109		mg/L		109	85 - 115

Lab Sample ID: LCSD 720-127478/3-A  
Matrix: Water  
Analysis Batch: 127515

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 127478

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0105		mg/L		105	85 - 115	4	20

Lab Sample ID: MB 720-127392/1-C  
Matrix: Water  
Analysis Batch: 127515

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:34	12/20/12 16:31	1

Lab Sample ID: MB 720-127441/1-C  
Matrix: Water  
Analysis Batch: 127515

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 127478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:04	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 720-127411/1-A  
 Matrix: Water  
 Analysis Batch: 127326

Client Sample ID: Method Blank  
 Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/18/12 14:48	1

Lab Sample ID: LCS 720-127411/2-A  
 Matrix: Water  
 Analysis Batch: 127326

Client Sample ID: Lab Control Sample  
 Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	1.95		ug/L		98	90 - 110

## Method: SM 2520B - Salinity

Lab Sample ID: MB 720-127494/3  
 Matrix: Water  
 Analysis Batch: 127494

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.10		ppth			12/20/12 13:09	1

Lab Sample ID: LCS 720-127494/4  
 Matrix: Water  
 Analysis Batch: 127494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Salinity	35.0	36.6		ppth		104	90 - 110

Lab Sample ID: LCSD 720-127494/5  
 Matrix: Water  
 Analysis Batch: 127494

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Salinity	35.0	36.5		ppth		104	90 - 110	0	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-173777/1  
 Matrix: Water  
 Analysis Batch: 173777

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			12/21/12 20:11	1

Lab Sample ID: LCS 500-173777/2  
 Matrix: Water  
 Analysis Batch: 173777

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	294		mg/L		118	80 - 120

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46755-1

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: MB 500-173842/1**  
**Matrix: Water**  
**Analysis Batch: 173842**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			12/24/12 12:36	1

**Lab Sample ID: LCS 500-173842/2**  
**Matrix: Water**  
**Analysis Batch: 173842**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	288		mg/L		115	80 - 120



# QC Association Summary

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

TestAmerica Job ID: 720-46755-1

## GC Semi VOA

### Prep Batch: 127398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Silica Gel Cleanup	Water	3510C SGC	
720-46755-2	B-8C	Silica Gel Cleanup	Water	3510C SGC	
720-46755-3	B-17A	Silica Gel Cleanup	Water	3510C SGC	
720-46755-4	B-14A	Silica Gel Cleanup	Water	3510C SGC	
720-46755-6	B-15B	Silica Gel Cleanup	Water	3510C SGC	
720-46755-8	UG-2	Silica Gel Cleanup	Water	3510C SGC	
720-46755-9	UG-1	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

### Analysis Batch: 127448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Silica Gel Cleanup	Water	8015B	127398
720-46755-2	B-8C	Silica Gel Cleanup	Water	8015B	127398
720-46755-3	B-17A	Silica Gel Cleanup	Water	8015B	127398
720-46755-4	B-14A	Silica Gel Cleanup	Water	8015B	127398

### Analysis Batch: 127449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	127398
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	127398
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	127398

### Analysis Batch: 127604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-6	B-15B	Silica Gel Cleanup	Water	8015B	127398
720-46755-8	UG-2	Silica Gel Cleanup	Water	8015B	127398
720-46755-9	UG-1	Silica Gel Cleanup	Water	8015B	127398

## Metals

### Prep Batch: 127402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	3005A	
720-46755-2	B-8C	Dissolved	Water	3005A	
720-46755-3	B-17A	Dissolved	Water	3005A	
720-46755-5	B-15C	Dissolved	Water	3005A	
720-46755-6	B-15B	Dissolved	Water	3005A	
720-46755-7	B-5A	Dissolved	Water	3005A	
720-46755-8	UG-2	Dissolved	Water	3005A	
720-46755-9	UG-1	Dissolved	Water	3005A	
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-127392/1-B	Method Blank	Dissolved	Water	3005A	

### Prep Batch: 127478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	7470A	
720-46755-2	B-8C	Dissolved	Water	7470A	

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46755-1

## Metals (Continued)

### Prep Batch: 127478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-3	B-17A	Dissolved	Water	7470A	
720-46755-5	B-15C	Dissolved	Water	7470A	
720-46755-6	B-15B	Dissolved	Water	7470A	
720-46755-7	B-5A	Dissolved	Water	7470A	
720-46755-8	UG-2	Dissolved	Water	7470A	
720-46755-9	UG-1	Dissolved	Water	7470A	
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-127392/1-C	Method Blank	Dissolved	Water	7470A	
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	

### Analysis Batch: 127515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	7470A	127478
720-46755-2	B-8C	Dissolved	Water	7470A	127478
720-46755-3	B-17A	Dissolved	Water	7470A	127478
720-46755-5	B-15C	Dissolved	Water	7470A	127478
720-46755-6	B-15B	Dissolved	Water	7470A	127478
720-46755-7	B-5A	Dissolved	Water	7470A	127478
720-46755-8	UG-2	Dissolved	Water	7470A	127478
720-46755-9	UG-1	Dissolved	Water	7470A	127478
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	127478
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	127478
MB 720-127392/1-C	Method Blank	Dissolved	Water	7470A	127478
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	127478

### Analysis Batch: 127550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	6010B	127402
720-46755-2	B-8C	Dissolved	Water	6010B	127402
720-46755-3	B-17A	Dissolved	Water	6010B	127402
720-46755-5	B-15C	Dissolved	Water	6010B	127402
720-46755-6	B-15B	Dissolved	Water	6010B	127402
720-46755-7	B-5A	Dissolved	Water	6010B	127402
720-46755-8	UG-2	Dissolved	Water	6010B	127402
720-46755-9	UG-1	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402
LCSD 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127392/1-B	Method Blank	Dissolved	Water	6010B	127402

### Analysis Batch: 127648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	6010B	127402
720-46755-2	B-8C	Dissolved	Water	6010B	127402
720-46755-3	B-17A	Dissolved	Water	6010B	127402
720-46755-5	B-15C	Dissolved	Water	6010B	127402
720-46755-6	B-15B	Dissolved	Water	6010B	127402
720-46755-7	B-5A	Dissolved	Water	6010B	127402
720-46755-8	UG-2	Dissolved	Water	6010B	127402
720-46755-9	UG-1	Dissolved	Water	6010B	127402
LCS 720-127402/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127402

TestAmerica Pleasanton



# QC Association Summary

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

TestAmerica Job ID: 720-46755-1

## Metals (Continued)

### Analysis Batch: 127648 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127402/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127402
MB 720-127392/1-B	Method Blank	Dissolved	Water	6010B	127402

## General Chemistry

### Analysis Batch: 127326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Dissolved	Water	7199	
720-46755-2	B-8C	Dissolved	Water	7199	
720-46755-3	B-17A	Dissolved	Water	7199	
720-46755-4	B-14A	Dissolved	Water	7199	
720-46755-5	B-15C	Dissolved	Water	7199	
720-46755-6	B-15B	Dissolved	Water	7199	
720-46755-7	B-5A	Dissolved	Water	7199	
720-46755-8	UG-2	Dissolved	Water	7199	
720-46755-9	UG-1	Dissolved	Water	7199	
LCS 720-127411/2-A	Lab Control Sample	Dissolved	Water	7199	
MB 720-127411/1-A	Method Blank	Dissolved	Water	7199	

### Analysis Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Total/NA	Water	SM 2520B	
720-46755-2	B-8C	Total/NA	Water	SM 2520B	
720-46755-3	B-17A	Total/NA	Water	SM 2520B	
720-46755-4	B-14A	Total/NA	Water	SM 2520B	
720-46755-6	B-15B	Total/NA	Water	SM 2520B	
720-46755-8	UG-2	Total/NA	Water	SM 2520B	
720-46755-9	UG-1	Total/NA	Water	SM 2520B	
LCS 720-127494/4	Lab Control Sample	Total/NA	Water	SM 2520B	
LCS 720-127494/5	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
MB 720-127494/3	Method Blank	Total/NA	Water	SM 2520B	

### Analysis Batch: 173777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-2	B-8C	Total/NA	Water	SM 2540C	
720-46755-3	B-17A	Total/NA	Water	SM 2540C	
720-46755-4	B-14A	Total/NA	Water	SM 2540C	
720-46755-6	B-15B	Total/NA	Water	SM 2540C	
720-46755-8	UG-2	Total/NA	Water	SM 2540C	
720-46755-9	UG-1	Total/NA	Water	SM 2540C	
LCS 500-173777/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-173777/1	Method Blank	Total/NA	Water	SM 2540C	

### Analysis Batch: 173842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46755-1	B-10A	Total/NA	Water	SM 2540C	
LCS 500-173842/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-173842/1	Method Blank	Total/NA	Water	SM 2540C	

# Lab Chronicle

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-10A

Lab Sample ID: 720-46755-1

Date Collected: 12/18/12 09:33

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 21:10	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:35	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:21	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:08	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173842	12/24/12 13:15	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:05	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:18	MJK	TAL SF

## Client Sample ID: B-8C

Lab Sample ID: 720-46755-2

Date Collected: 12/18/12 10:50

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 20:33	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:44	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:34	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:13	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:51	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:17	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:19	MJK	TAL SF

## Client Sample ID: B-17A

Lab Sample ID: 720-46755-3

Date Collected: 12/18/12 11:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 20:09	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:46	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:38	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:17	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:53	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:29	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:21	MJK	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-14A

Lab Sample ID: 720-46755-4

Date Collected: 12/18/12 12:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/20/12 21:34	JZ	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:56	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 21:40	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:22	MJK	TAL SF

## Client Sample ID: B-15C

Lab Sample ID: 720-46755-5

Date Collected: 12/18/12 12:30

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:34	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:50	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:43	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:21	CAM	TAL SF
Dissolved	Analysis	7199		1	127326	12/18/12 21:52	EYT	TAL SF

## Client Sample ID: B-15B

Lab Sample ID: 720-46755-6

Date Collected: 12/18/12 13:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127604	12/22/12 12:20	DH	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:52	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:23	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:47	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:26	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 20:59	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 22:30	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:24	MJK	TAL SF

## Client Sample ID: B-5A

Lab Sample ID: 720-46755-7

Date Collected: 12/18/12 14:13

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:54	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:26	ET	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46755-1

## Client Sample ID: B-5A

Lab Sample ID: 720-46755-7

Date Collected: 12/18/12 14:13

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	127550	12/21/12 04:51	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:39	CAM	TAL SF
Dissolved	Analysis	7199		1	127326	12/18/12 22:42	EYT	TAL SF

## Client Sample ID: UG-2

Lab Sample ID: 720-46755-8

Date Collected: 12/18/12 15:00

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127604	12/22/12 12:44	DH	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 16:57	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:26	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 04:56	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:43	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 21:01	CLB	TAL CHI
Dissolved	Analysis	7199		10	127326	12/18/12 23:40	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:29	MJK	TAL SF

## Client Sample ID: UG-1

Lab Sample ID: 720-46755-9

Date Collected: 12/18/12 15:35

Matrix: Water

Date Received: 12/18/12 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 13:48	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127604	12/22/12 13:08	DH	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:01	SK	TAL SF
Dissolved	Prep	3005A			127402	12/19/12 14:26	ET	TAL SF
Dissolved	Analysis	6010B		1	127550	12/21/12 05:00	CAM	TAL SF
Dissolved	Analysis	6010B		1	127648	12/21/12 22:47	CAM	TAL SF
Total/NA	Analysis	SM 2540C		1	173777	12/21/12 21:04	CLB	TAL CHI
Dissolved	Analysis	7199		1	127326	12/18/12 23:05	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:30	MJK	TAL SF

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SF = 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: 720-46755-1

## 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

## Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-12
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-13
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

# Method Summary

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

TestAmerica Job ID: 720-46755-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7470A	Mercury (CVAA)	SW846	TAL SF
7199	Chromium, Hexavalent (IC)	SW846	TAL SF
SM 2520B	Salinity	SM	TAL SF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SF = 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: 720-46755-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46755-1	B-10A	Water	12/18/12 09:33	12/18/12 17:00
720-46755-2	B-8C	Water	12/18/12 10:50	12/18/12 17:00
720-46755-3	B-17A	Water	12/18/12 11:00	12/18/12 17:00
720-46755-4	B-14A	Water	12/18/12 12:00	12/18/12 17:00
720-46755-5	B-15C	Water	12/18/12 12:30	12/18/12 17:00
720-46755-6	B-15B	Water	12/18/12 13:00	12/18/12 17:00
720-46755-7	B-5A	Water	12/18/12 14:13	12/18/12 17:00
720-46755-8	UG-2	Water	12/18/12 15:00	12/18/12 17:00
720-46755-9	UG-1	Water	12/18/12 15:35	12/18/12 17:00



720-46755

Regulatory Program:  DW  NPDES  RCRA  Other:

1430419

<b>Client Contact</b> Your Company Name here: <u>Niyo &amp; Moore</u> Address: <u>1956 Webster St. # 400</u> City/State/Zip: <u>Dakland CA 94612</u> (xxx) xxx-xxxx: <u>510.343.3000</u> Phone (xxx) xxx-xxxx: <u>.3001</u> FAX Project Name: <u>Western Forge &amp; Flange</u> Site: <u>590 Cleveland Ave, Albany, CA</u> P O #: <u>401 823 001</u>		<b>Project Manager:</b> <u>Melissa Terry</u> Tel/Fax: <u>510.343.3000</u> <b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) _____ TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> _____ Date: _____ <b>Lab Contact:</b> _____ Carrier: _____		COC No: _____ of _____ COCs <b>For Lab Use Only:</b> Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____ Sample Specific Notes: _____	
--	--	---	--	--	--	--	--

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Composite = C / Grab = G	TPH - no	Hexavalent Chromium	Title 22 Metals	Salinity / TDS
B-10A	12/18/12	0933		Water	4			X	X	X	X
B-8C		1050			4			X	X	X	X
B-17A		1100			4			X	X	X	X
B-14A		1200			3			X	X	X	X
B-15C		1230			2			X	X	X	X
B-15B		1300			4			X	X	X	X
B-5A		1413			2			X	X	X	X
UG-2		1500			4			X	X	X	X
UG-1		1535			4			X	X	X	X

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:

TPH-hydraulic oil by 8015M w/silicagel cleanup  
 Hexavalent chromium by 7196A  
 Title 22 Metals by 6010B  
 Salinity / TDS by SM2520B/160.1  
 1.50 1.70

Relinquished by: <u>Melissa Terry M Terry</u>	Company: <u>Niyo &amp; Moore</u>	Date/Time: <u>12/18 1545</u>	Received by: <u>[Signature]</u>	Company: <u>TRSF</u>	Date/Time: <u>12-18-12 1045</u>
Relinquished by: <u>[Signature]</u>	Company: <u>TRSF</u>	Date/Time: <u>12-18-12 1700</u>	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: <u>John Miller</u>	Company: <u>Test America</u>	Date/Time: <u>12-18-12 1700</u>

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## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46755-1

**Login Number: 46755**

**List Number: 1**

**Creator: Mullen, Joan**

**List Source: TestAmerica Pleasanton**

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	

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46755-1

**Login Number: 46755**

**List Source: TestAmerica Chicago**

**List Number: 1**

**List Creation: 12/20/12 11:40 AM**

**Creator: Lunt, Jeff T**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
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.	True	



# 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: 720-46794-1

Client Project/Site: Western Forge & Flange

For:

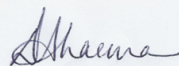
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

12/27/2012 2:09:07 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

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

TestAmerica Job ID: 720-46794-1

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

## 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46794-1

**Job ID: 720-46794-1**

**Laboratory: TestAmerica Pleasanton**

## Narrative

**Job Narrative**  
**720-46794-1**

### Comments

No additional comments.

### Receipt

The samples were received on 12/19/2012 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

### GC Semi VOA

No analytical or quality issues were noted.

### Metals

No analytical or quality issues were noted.

### General Chemistry

Method SM 2540C: The method blank for preparation batch 127513 contained TDS above the reporting limit (RL). The associated sample contained detects for this analyte at concentrations greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46794-1

## Client Sample ID: B-25A

## Lab Sample ID: 720-46794-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.022		0.010		mg/L	1		6010B	Dissolved
Barium	0.33		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.014		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.062		0.010		mg/L	1		6010B	Dissolved
Nickel	0.048		0.010		mg/L	1		6010B	Dissolved
Zinc	0.20		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: B-24A

## Lab Sample ID: 720-46794-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.12		0.0050		mg/L	1		6010B	Dissolved
Copper	0.026		0.020		mg/L	1		6010B	Dissolved
Lead	0.0056		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.12		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.011		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	810	B	10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.74		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-24B

## Lab Sample ID: 720-46794-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.54		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.020		0.010		mg/L	1		6010B	Dissolved
Nickel	0.011		0.010		mg/L	1		6010B	Dissolved

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		570		ug/L		12/19/12 21:08	12/21/12 00:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.002		0 - 5				12/19/12 21:08	12/21/12 00:48	1
p-Terphenyl	98		31 - 150				12/19/12 21:08	12/21/12 00:48	1





# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-25A**  
**Date Collected: 12/19/12 09:48**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Arsenic</b>	<b>0.022</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Barium</b>	<b>0.33</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:19	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Cobalt</b>	<b>0.014</b>		0.0020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 18:09	1
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Molybdenum</b>	<b>0.062</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Nickel</b>	<b>0.048</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:19	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Zinc</b>	<b>0.20</b>		0.020		mg/L		12/20/12 11:42	12/22/12 01:19	1

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Barium</b>	<b>0.12</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:27	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:27	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:27	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Copper</b>	<b>0.026</b>		0.020		mg/L		12/20/12 11:42	12/26/12 18:18	1
<b>Lead</b>	<b>0.0056</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Molybdenum</b>	<b>0.12</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Nickel	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:27	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:27	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Vanadium</b>	<b>0.011</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:27	1

**Client Sample ID: B-24B**  
**Date Collected: 12/19/12 10:00**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
<b>Barium</b>	<b>0.54</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:32	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 18:22	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: B-24B  
Date Collected: 12/19/12 10:00  
Date Received: 12/19/12 17:00

Lab Sample ID: 720-46794-3  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:32	1
Molybdenum	0.020		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Nickel	0.011		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:32	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:32	1

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 7470A - Mercury (CVAA) - Dissolved

**Client Sample ID: B-25A**  
**Date Collected: 12/19/12 09:48**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:07	1

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:10	1

**Client Sample ID: B-24B**  
**Date Collected: 12/19/12 10:00**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:19	1

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## General Chemistry

Client Sample ID: B-24A  
Date Collected: 12/19/12 09:55  
Date Received: 12/19/12 17:00

Lab Sample ID: 720-46794-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	810	B	10		mg/L			12/20/12 17:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.74		0.10		ppth			12/20/12 13:32	1

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# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## General Chemistry - Dissolved

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/19/12 19:35	1

**Client Sample ID: B-24B**  
**Date Collected: 12/19/12 10:00**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/19/12 19:47	1

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

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

**Lab Sample ID: MB 720-127398/1-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		500		ug/L		12/19/12 13:48	12/20/12 14:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5	12/19/12 13:48	12/20/12 14:49	1
p-Terphenyl	97		31 - 150	12/19/12 13:48	12/20/12 14:49	1

**Lab Sample ID: LCS 720-127398/2-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1830		ug/L		73	32 - 119

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	90		31 - 150

**Lab Sample ID: LCSD 720-127398/3-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	1790		ug/L		71	32 - 119	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	92		31 - 150

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-127472/1-A**  
**Matrix: Water**  
**Analysis Batch: 127650**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Barium	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:44	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:44	1
Molybdenum	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Nickel	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:44	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: MB 720-127472/1-A**  
**Matrix: Water**  
**Analysis Batch: 127650**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:44	1

**Lab Sample ID: MB 720-127472/1-A**  
**Matrix: Water**  
**Analysis Batch: 127771**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 17:44	1

**Lab Sample ID: LCS 720-127472/2-A**  
**Matrix: Water**  
**Analysis Batch: 127650**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.00		mg/L		100	80 - 120
Arsenic	1.00	1.01		mg/L		101	80 - 120
Barium	1.00	0.974		mg/L		97	80 - 120
Beryllium	1.00	1.03		mg/L		103	80 - 120
Cadmium	1.00	0.968		mg/L		97	80 - 120
Chromium	1.00	1.02		mg/L		102	80 - 120
Cobalt	1.00	1.03		mg/L		103	80 - 120
Lead	1.00	1.00		mg/L		100	80 - 120
Molybdenum	1.00	0.981		mg/L		98	80 - 120
Nickel	1.00	1.00		mg/L		100	80 - 120
Selenium	1.00	0.946		mg/L		95	80 - 120
Silver	0.500	0.500		mg/L		100	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120
Vanadium	1.00	1.01		mg/L		101	80 - 120
Zinc	1.00	1.02		mg/L		102	80 - 120

**Lab Sample ID: LCS 720-127472/2-A**  
**Matrix: Water**  
**Analysis Batch: 127771**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1.00	0.952		mg/L		95	80 - 120

**Lab Sample ID: LCSD 720-127472/3-A**  
**Matrix: Water**  
**Analysis Batch: 127650**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	1.01		mg/L		101	80 - 120	1	20
Arsenic	1.00	1.03		mg/L		103	80 - 120	2	20
Barium	1.00	0.996		mg/L		100	80 - 120	2	20
Beryllium	1.00	1.06		mg/L		106	80 - 120	3	20
Cadmium	1.00	0.966		mg/L		97	80 - 120	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID:** LCSD 720-127472/3-A  
**Matrix:** Water  
**Analysis Batch:** 127650

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total Recoverable  
**Prep Batch:** 127472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD Limit
							Limits	RPD	
Chromium	1.00	1.05		mg/L		105	80 - 120	3	20
Cobalt	1.00	1.04		mg/L		104	80 - 120	1	20
Lead	1.00	1.00		mg/L		100	80 - 120	0	20
Molybdenum	1.00	0.982		mg/L		98	80 - 120	0	20
Nickel	1.00	1.00		mg/L		100	80 - 120	0	20
Selenium	1.00	0.939		mg/L		94	80 - 120	1	20
Silver	0.500	0.510		mg/L		102	80 - 120	2	20
Thallium	1.00	1.02		mg/L		102	80 - 120	1	20
Vanadium	1.00	1.03		mg/L		103	80 - 120	2	20
Zinc	1.00	1.03		mg/L		103	80 - 120	1	20

**Lab Sample ID:** LCSD 720-127472/3-A  
**Matrix:** Water  
**Analysis Batch:** 127771

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total Recoverable  
**Prep Batch:** 127472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD Limit
							Limits	RPD	
Copper	1.00	0.967		mg/L		97	80 - 120	2	20

**Lab Sample ID:** MB 720-127441/1-B  
**Matrix:** Water  
**Analysis Batch:** 127650

**Client Sample ID:** Method Blank  
**Prep Type:** Dissolved  
**Prep Batch:** 127472

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Barium	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:57	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:57	1
Molybdenum	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Nickel	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:57	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:57	1

**Lab Sample ID:** MB 720-127441/1-B  
**Matrix:** Water  
**Analysis Batch:** 127771

**Client Sample ID:** Method Blank  
**Prep Type:** Dissolved  
**Prep Batch:** 127472

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 17:56	1

TestAmerica Pleasanton



# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-46794-1 MS

Matrix: Water

Analysis Batch: 127650

Client Sample ID: B-25A

Prep Type: Dissolved

Prep Batch: 127472

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Antimony	ND		1.00	1.01		mg/L		100	75 - 125	
Arsenic	0.022		1.00	1.09		mg/L		107	75 - 125	
Barium	0.33		1.00	1.31		mg/L		99	75 - 125	
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125	
Cadmium	ND		1.00	0.941		mg/L		94	75 - 125	
Chromium	ND		1.00	1.05		mg/L		104	75 - 125	
Cobalt	0.014		1.00	0.990		mg/L		98	75 - 125	
Lead	ND		1.00	0.928		mg/L		93	75 - 125	
Molybdenum	0.062		1.00	1.04		mg/L		98	75 - 125	
Nickel	0.048		1.00	0.988		mg/L		94	75 - 125	
Selenium	ND		1.00	0.952		mg/L		95	75 - 125	
Silver	ND		0.500	0.520		mg/L		104	75 - 125	
Thallium	ND		1.00	0.869		mg/L		87	75 - 125	
Vanadium	ND		1.00	1.06		mg/L		106	75 - 125	
Zinc	0.20		1.00	1.19		mg/L		100	75 - 125	

Lab Sample ID: 720-46794-1 MS

Matrix: Water

Analysis Batch: 127771

Client Sample ID: B-25A

Prep Type: Dissolved

Prep Batch: 127472

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Copper	ND		1.00	0.989		mg/L		99	75 - 125	

Lab Sample ID: 720-46794-1 MSD

Matrix: Water

Analysis Batch: 127650

Client Sample ID: B-25A

Prep Type: Dissolved

Prep Batch: 127472

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits	RPD	Limit
Antimony	ND		1.00	1.01		mg/L		100	75 - 125		0	20
Arsenic	0.022		1.00	1.09		mg/L		107	75 - 125		0	20
Barium	0.33		1.00	1.31		mg/L		99	75 - 125		0	20
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125		0	20
Cadmium	ND		1.00	0.945		mg/L		94	75 - 125		0	20
Chromium	ND		1.00	1.04		mg/L		104	75 - 125		1	20
Cobalt	0.014		1.00	0.990		mg/L		98	75 - 125		0	20
Lead	ND		1.00	0.927		mg/L		92	75 - 125		0	20
Molybdenum	0.062		1.00	1.05		mg/L		99	75 - 125		0	20
Nickel	0.048		1.00	0.989		mg/L		94	75 - 125		0	20
Selenium	ND		1.00	0.954		mg/L		95	75 - 125		0	20
Silver	ND		0.500	0.519		mg/L		104	75 - 125		0	20
Thallium	ND		1.00	0.863		mg/L		86	75 - 125		1	20
Vanadium	ND		1.00	1.06		mg/L		105	75 - 125		1	20
Zinc	0.20		1.00	1.19		mg/L		99	75 - 125		0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-46794-1 MSD  
 Matrix: Water  
 Analysis Batch: 127771

Client Sample ID: B-25A  
 Prep Type: Dissolved  
 Prep Batch: 127472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	ND		1.00	1.00		mg/L		100	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 720-127478/2-A  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 127478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.0109		mg/L		109	85 - 115

Lab Sample ID: LCSD 720-127478/3-A  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 127478

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0105		mg/L		105	85 - 115	4	20

Lab Sample ID: MB 720-127441/1-C  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:04	1

## Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: LCS 720-127412/11  
 Matrix: Water  
 Analysis Batch: 127412

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	1.98		ug/L		99	90 - 110

Lab Sample ID: LCS 720-127412/13  
 Matrix: Water  
 Analysis Batch: 127412

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	2.01		ug/L		101	90 - 110

Lab Sample ID: LCSD 720-127412/12  
 Matrix: Water  
 Analysis Batch: 127412

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	2.00	1.98		ug/L		99	90 - 110	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID:** LCSD 720-127412/14  
**Matrix:** Water  
**Analysis Batch:** 127412

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	2.00	2.01		ug/L		100	90 - 110	0	20

**Lab Sample ID:** MB 720-127506/1-A  
**Matrix:** Water  
**Analysis Batch:** 127412

**Client Sample ID:** Method Blank  
**Prep Type:** Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/19/12 16:35	1

**Lab Sample ID:** LCS 720-127506/2-A  
**Matrix:** Water  
**Analysis Batch:** 127412

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	2.02		ug/L		101	90 - 110

**Lab Sample ID:** 720-46794-2 MS  
**Matrix:** Water  
**Analysis Batch:** 127412

**Client Sample ID:** B-24A  
**Prep Type:** Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND		2.00	2.39		ug/L		101	80 - 120

**Lab Sample ID:** 720-46794-2 MSD  
**Matrix:** Water  
**Analysis Batch:** 127412

**Client Sample ID:** B-24A  
**Prep Type:** Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	ND		2.00	2.35		ug/L		99	80 - 120	2	20

## Method: SM 2520B - Salinity

**Lab Sample ID:** MB 720-127494/3  
**Matrix:** Water  
**Analysis Batch:** 127494

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.10		ppth			12/20/12 13:09	1

**Lab Sample ID:** LCS 720-127494/4  
**Matrix:** Water  
**Analysis Batch:** 127494

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Salinity	35.0	36.6		ppth		104	90 - 110

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: SM 2520B - Salinity (Continued)

Lab Sample ID: LCSD 720-127494/5  
 Matrix: Water  
 Analysis Batch: 127494

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Salinity	35.0	36.5		ppth		104	90 - 110	0	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 720-127513/2  
 Matrix: Water  
 Analysis Batch: 127513

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14.0		10		mg/L			12/20/12 17:39	1

Lab Sample ID: LCS 720-127513/1  
 Matrix: Water  
 Analysis Batch: 127513

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1020		mg/L		102	85 - 115

# QC Association Summary

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

TestAmerica Job ID: 720-46794-1

## GC Semi VOA

### Prep Batch: 127398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

### Analysis Batch: 127448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Silica Gel Cleanup	Water	8015B	127398

### Analysis Batch: 127449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	127398
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	127398
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	127398

## Metals

### Prep Batch: 127472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	3005A	
720-46794-1 MS	B-25A	Dissolved	Water	3005A	
720-46794-1 MSD	B-25A	Dissolved	Water	3005A	
720-46794-2	B-24A	Dissolved	Water	3005A	
720-46794-3	B-24B	Dissolved	Water	3005A	
LCS 720-127472/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-127472/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-127441/1-B	Method Blank	Dissolved	Water	3005A	
MB 720-127472/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 127478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	7470A	
720-46794-2	B-24A	Dissolved	Water	7470A	
720-46794-3	B-24B	Dissolved	Water	7470A	
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	

### Analysis Batch: 127515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	7470A	127478
720-46794-2	B-24A	Dissolved	Water	7470A	127478
720-46794-3	B-24B	Dissolved	Water	7470A	127478
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	127478
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	127478
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	127478

### Analysis Batch: 127650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	6010B	127472

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46794-1

## Metals (Continued)

### Analysis Batch: 127650 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1 MS	B-25A	Dissolved	Water	6010B	127472
720-46794-1 MSD	B-25A	Dissolved	Water	6010B	127472
720-46794-2	B-24A	Dissolved	Water	6010B	127472
720-46794-3	B-24B	Dissolved	Water	6010B	127472
LCS 720-127472/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127472
LCSD 720-127472/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127472
MB 720-127441/1-B	Method Blank	Dissolved	Water	6010B	127472
MB 720-127472/1-A	Method Blank	Total Recoverable	Water	6010B	127472

### Analysis Batch: 127771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	6010B	127472
720-46794-1 MS	B-25A	Dissolved	Water	6010B	127472
720-46794-1 MSD	B-25A	Dissolved	Water	6010B	127472
720-46794-2	B-24A	Dissolved	Water	6010B	127472
720-46794-3	B-24B	Dissolved	Water	6010B	127472
LCS 720-127472/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127472
LCSD 720-127472/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127472
MB 720-127441/1-B	Method Blank	Dissolved	Water	6010B	127472
MB 720-127472/1-A	Method Blank	Total Recoverable	Water	6010B	127472

## General Chemistry

### Analysis Batch: 127412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Dissolved	Water	7199	
720-46794-2 MS	B-24A	Dissolved	Water	7199	
720-46794-2 MSD	B-24A	Dissolved	Water	7199	
720-46794-3	B-24B	Dissolved	Water	7199	
LCS 720-127412/11	Lab Control Sample	Total/NA	Water	7199	
LCS 720-127412/13	Lab Control Sample	Total/NA	Water	7199	
LCS 720-127506/2-A	Lab Control Sample	Dissolved	Water	7199	
LCSD 720-127412/12	Lab Control Sample Dup	Total/NA	Water	7199	
LCSD 720-127412/14	Lab Control Sample Dup	Total/NA	Water	7199	
MB 720-127506/1-A	Method Blank	Dissolved	Water	7199	

### Analysis Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Total/NA	Water	SM 2520B	
LCS 720-127494/4	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 720-127494/5	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
MB 720-127494/3	Method Blank	Total/NA	Water	SM 2520B	

### Analysis Batch: 127513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Total/NA	Water	SM 2540C	
LCS 720-127513/1	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 720-127513/2	Method Blank	Total/NA	Water	SM 2540C	

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-46794-1

## Client Sample ID: B-25A

Date Collected: 12/19/12 09:48

Date Received: 12/19/12 17:00

## Lab Sample ID: 720-46794-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:07	SK	TAL SF
Dissolved	Prep	3005A			127472	12/20/12 11:42	ET	TAL SF
Dissolved	Analysis	6010B		1	127650	12/22/12 01:19	CAM	TAL SF
Dissolved	Analysis	6010B		1	127771	12/26/12 18:09	EFH	TAL SF

## Client Sample ID: B-24A

Date Collected: 12/19/12 09:55

Date Received: 12/19/12 17:00

## Lab Sample ID: 720-46794-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 21:08	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/21/12 00:48	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:10	SK	TAL SF
Dissolved	Prep	3005A			127472	12/20/12 11:42	ET	TAL SF
Dissolved	Analysis	6010B		1	127650	12/22/12 01:27	CAM	TAL SF
Dissolved	Analysis	6010B		1	127771	12/26/12 18:18	EFH	TAL SF
Dissolved	Analysis	7199		1	127412	12/19/12 19:35	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:32	MJK	TAL SF
Total/NA	Analysis	SM 2540C		1	127513	12/20/12 17:39	DFR	TAL SF

## Client Sample ID: B-24B

Date Collected: 12/19/12 10:00

Date Received: 12/19/12 17:00

## Lab Sample ID: 720-46794-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:19	SK	TAL SF
Dissolved	Prep	3005A			127472	12/20/12 11:42	ET	TAL SF
Dissolved	Analysis	6010B		1	127650	12/22/12 01:32	CAM	TAL SF
Dissolved	Analysis	6010B		1	127771	12/26/12 18:22	EFH	TAL SF
Dissolved	Analysis	7199		1	127412	12/19/12 19:47	EYT	TAL SF

**Laboratory References:**

TAL SF = 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: 720-46794-1

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46794-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7470A	Mercury (CVAA)	SW846	TAL SF
7199	Chromium, Hexavalent (IC)	SW846	TAL SF
SM 2520B	Salinity	SM	TAL SF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SF

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

**Laboratory References:**

TAL SF = 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: 720-46794-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46794-1	B-25A	Water	12/19/12 09:48	12/19/12 17:00
720-46794-2	B-24A	Water	12/19/12 09:55	12/19/12 17:00
720-46794-3	B-24B	Water	12/19/12 10:00	12/19/12 17:00

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# Test America

ANALYTICAL TESTING CORPORATION

CHAIN OF CUSTODY **720 46 794**

**143084**

885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308  
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100

12/27/2012

Company Name: <b>Ninyo &amp; Moore</b>		Project: <b>Western Forge &amp; Flange</b>	
Mailing Address: <b>1956 Webster St. # 400</b>		Billing Address (if different):	
City: <b>Oakland</b>	State: <b>CA</b>	Zip Code: <b>94612</b>	
Telephone: <b>510.343.3000</b>	Fax #:	P.O. #: <b>401823001</b>	
Report To: <b>Kris Larson</b>	E-Mail Address: <b>klarson@ninyoandmoore.com</b>	QC Data: <input type="checkbox"/> Level II (standard)	<input type="checkbox"/> Level III
Sampler: <b>Melissa Terry</b>	Date/Time Results Required: <b>5-7 days</b>	Test America Work Order #	

Turnaround Time:  10-15 Working Days (Standard TAT)  
 7 Working Days  
 5 Working Days

72 hours  
 48 hours  
 24 hours  
 2-8 hours

**MANDATORY:** ANALYSES REQUESTED (Please provide method)

- SDWA (Drinking Water)
- CWA (Waste Water)
- RCRA (Hazardous Waste)
- Other

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Test America's Sample #	TPH-hydraulic oil	8015M	Hexavalent Chromium H160A	TTHc-22 metals	6010B	Salinity/TDS	591250B/1001	Comments/Temp. (if required)
1. B-25A	12/19 @ 0948	water	1	250 ml plastic									
2. B-24A	↓ @ 0955	↓	4	many 250 ml plastic		X	X	X	X	X	X		TPH-ho w/silica gel cleanup
3. B-24B	↓ @ 1000	↓	2	250 ml plastic									
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Relinquished by/Co.: <b>M Terry / Ninyo &amp; Moore</b>	Received by/Co.: <b>[Signature]</b>	Date/Time/Temp: <b>12/19/12 12:05</b>
Relinquished by/Co.: <b>[Signature]</b>	Received by/Co.: <b>John Miller</b>	Date/Time/Temp: <b>12-19-12 1700</b>
Relinquished by/Co.:	Received by/Co.:	Date/Time/Temp:

Were Samples Received in Good Condition?  Yes  No    Samples on Ice?  Yes  No    Method of Shipment: \_\_\_\_\_ Page \_\_\_\_ of \_\_\_\_

**Note:** By relinquishing samples to Test America, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days.

2500

White: Test America      Yellow: Test America      Pink: Client

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## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46794-1

**Login Number: 46794**

**List Number: 1**

**Creator: Apostol, Anita**

**List Source: TestAmerica Pleasanton**

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	

# 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: 720-46794-1

Client Project/Site: Western Forge & Flange

Revision: 1

For:

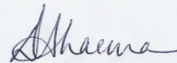
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/22/2013 5:15:38 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

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

TestAmerica Job ID: 720-46794-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

## 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46794-1

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**Job ID: 720-46794-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

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**Job Narrative**  
**720-46794-1**

**Comments**

The TEPH data is revised to report MDLs and "J" flags.

**Receipt**

The samples were received on 12/19/2012 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

Method SM 2540C: The method blank for preparation batch 127513 contained TDS above the reporting limit (RL). The associated sample contained detects for this analyte at concentrations greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No other 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: 720-46794-1

## Client Sample ID: B-25A

## Lab Sample ID: 720-46794-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.022		0.010		mg/L	1		6010B	Dissolved
Barium	0.33		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.014		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.062		0.010		mg/L	1		6010B	Dissolved
Nickel	0.048		0.010		mg/L	1		6010B	Dissolved
Zinc	0.20		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: B-24A

## Lab Sample ID: 720-46794-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	100	J	570	42	ug/L	1		8015B	Silica Gel Cleanup
Barium	0.12		0.0050		mg/L	1		6010B	Dissolved
Copper	0.026		0.020		mg/L	1		6010B	Dissolved
Lead	0.0056		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.12		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.011		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	810	B	10		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Salinity	0.74		0.10		ppth	1		SM 2520B	Total/NA

## Client Sample ID: B-24B

## Lab Sample ID: 720-46794-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.54		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.020		0.010		mg/L	1		6010B	Dissolved
Nickel	0.011		0.010		mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Client Sample ID: B-24A  
 Date Collected: 12/19/12 09:55  
 Date Received: 12/19/12 17:00

Lab Sample ID: 720-46794-2  
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	100	J	570	42	ug/L		12/19/12 21:08	12/21/12 00:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.002		0 - 5				12/19/12 21:08	12/21/12 00:48	1
p-Terphenyl	98		31 - 150				12/19/12 21:08	12/21/12 00:48	1

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) - Dissolved

**Client Sample ID: B-25A**  
**Date Collected: 12/19/12 09:48**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Arsenic</b>	<b>0.022</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Barium</b>	<b>0.33</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:19	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Cobalt</b>	<b>0.014</b>		0.0020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 18:09	1
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Molybdenum</b>	<b>0.062</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Nickel</b>	<b>0.048</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:19	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:19	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:19	1
<b>Zinc</b>	<b>0.20</b>		0.020		mg/L		12/20/12 11:42	12/22/12 01:19	1

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Barium</b>	<b>0.12</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:27	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:27	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:27	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Copper</b>	<b>0.026</b>		0.020		mg/L		12/20/12 11:42	12/26/12 18:18	1
<b>Lead</b>	<b>0.0056</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Molybdenum</b>	<b>0.12</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Nickel	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:27	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:27	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
<b>Vanadium</b>	<b>0.011</b>		0.010		mg/L		12/20/12 11:42	12/22/12 01:27	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:27	1

**Client Sample ID: B-24B**  
**Date Collected: 12/19/12 10:00**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
<b>Barium</b>	<b>0.54</b>		0.0050		mg/L		12/20/12 11:42	12/22/12 01:32	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 18:22	1

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# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: B-24B  
Date Collected: 12/19/12 10:00  
Date Received: 12/19/12 17:00

Lab Sample ID: 720-46794-3  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:32	1
Molybdenum	0.020		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Nickel	0.011		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:32	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 01:32	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 01:32	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 01:32	1

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 7470A - Mercury (CVAA) - Dissolved

**Client Sample ID: B-25A**  
**Date Collected: 12/19/12 09:48**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:07	1

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:10	1

**Client Sample ID: B-24B**  
**Date Collected: 12/19/12 10:00**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:19	1

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## General Chemistry

Client Sample ID: B-24A  
Date Collected: 12/19/12 09:55  
Date Received: 12/19/12 17:00

Lab Sample ID: 720-46794-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	810	B	10		mg/L			12/20/12 17:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	0.74		0.10		ppth			12/20/12 13:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

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

TestAmerica Job ID: 720-46794-1

## General Chemistry - Dissolved

**Client Sample ID: B-24A**  
**Date Collected: 12/19/12 09:55**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/19/12 19:35	1

**Client Sample ID: B-24B**  
**Date Collected: 12/19/12 10:00**  
**Date Received: 12/19/12 17:00**

**Lab Sample ID: 720-46794-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/19/12 19:47	1

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

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

**Lab Sample ID: MB 720-127398/1-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		500	37	ug/L		12/19/12 13:48	12/20/12 14:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 5	12/19/12 13:48	12/20/12 14:49	1
p-Terphenyl	97		31 - 150	12/19/12 13:48	12/20/12 14:49	1

**Lab Sample ID: LCS 720-127398/2-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1830		ug/L		73	32 - 119

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	90		31 - 150

**Lab Sample ID: LCSD 720-127398/3-A**  
**Matrix: Water**  
**Analysis Batch: 127449**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 127398**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	1790		ug/L		71	32 - 119	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	92		31 - 150

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-127472/1-A**  
**Matrix: Water**  
**Analysis Batch: 127650**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 127472**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Barium	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:44	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:44	1
Molybdenum	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Nickel	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:44	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:44	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-127472/1-A  
Matrix: Water  
Analysis Batch: 127650

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 127472

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:44	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:44	1

Lab Sample ID: MB 720-127472/1-A  
Matrix: Water  
Analysis Batch: 127771

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 127472

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 17:44	1

Lab Sample ID: LCS 720-127472/2-A  
Matrix: Water  
Analysis Batch: 127650

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 127472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.00		mg/L		100	80 - 120
Arsenic	1.00	1.01		mg/L		101	80 - 120
Barium	1.00	0.974		mg/L		97	80 - 120
Beryllium	1.00	1.03		mg/L		103	80 - 120
Cadmium	1.00	0.968		mg/L		97	80 - 120
Chromium	1.00	1.02		mg/L		102	80 - 120
Cobalt	1.00	1.03		mg/L		103	80 - 120
Lead	1.00	1.00		mg/L		100	80 - 120
Molybdenum	1.00	0.981		mg/L		98	80 - 120
Nickel	1.00	1.00		mg/L		100	80 - 120
Selenium	1.00	0.946		mg/L		95	80 - 120
Silver	0.500	0.500		mg/L		100	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120
Vanadium	1.00	1.01		mg/L		101	80 - 120
Zinc	1.00	1.02		mg/L		102	80 - 120

Lab Sample ID: LCS 720-127472/2-A  
Matrix: Water  
Analysis Batch: 127771

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 127472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1.00	0.952		mg/L		95	80 - 120

Lab Sample ID: LCSD 720-127472/3-A  
Matrix: Water  
Analysis Batch: 127650

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total Recoverable  
Prep Batch: 127472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	1.01		mg/L		101	80 - 120	1	20
Arsenic	1.00	1.03		mg/L		103	80 - 120	2	20
Barium	1.00	0.996		mg/L		100	80 - 120	2	20
Beryllium	1.00	1.06		mg/L		106	80 - 120	3	20
Cadmium	1.00	0.966		mg/L		97	80 - 120	0	20

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# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 720-127472/3-A  
 Matrix: Water  
 Analysis Batch: 127650

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total Recoverable  
 Prep Batch: 127472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD Limit
							Limits	RPD	
Chromium	1.00	1.05		mg/L		105	80 - 120	3	20
Cobalt	1.00	1.04		mg/L		104	80 - 120	1	20
Lead	1.00	1.00		mg/L		100	80 - 120	0	20
Molybdenum	1.00	0.982		mg/L		98	80 - 120	0	20
Nickel	1.00	1.00		mg/L		100	80 - 120	0	20
Selenium	1.00	0.939		mg/L		94	80 - 120	1	20
Silver	0.500	0.510		mg/L		102	80 - 120	2	20
Thallium	1.00	1.02		mg/L		102	80 - 120	1	20
Vanadium	1.00	1.03		mg/L		103	80 - 120	2	20
Zinc	1.00	1.03		mg/L		103	80 - 120	1	20

Lab Sample ID: LCSD 720-127472/3-A  
 Matrix: Water  
 Analysis Batch: 127771

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total Recoverable  
 Prep Batch: 127472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD Limit
							Limits	RPD	
Copper	1.00	0.967		mg/L		97	80 - 120	2	20

Lab Sample ID: MB 720-127441/1-B  
 Matrix: Water  
 Analysis Batch: 127650

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127472

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Arsenic	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Barium	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:57	1
Beryllium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Cadmium	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Chromium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Cobalt	ND		0.0020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Lead	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:57	1
Molybdenum	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Nickel	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Selenium	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:57	1
Silver	ND		0.0050		mg/L		12/20/12 11:42	12/22/12 00:57	1
Thallium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Vanadium	ND		0.010		mg/L		12/20/12 11:42	12/22/12 00:57	1
Zinc	ND		0.020		mg/L		12/20/12 11:42	12/22/12 00:57	1

Lab Sample ID: MB 720-127441/1-B  
 Matrix: Water  
 Analysis Batch: 127771

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127472

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		0.020		mg/L		12/20/12 11:42	12/26/12 17:56	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-46794-1 MS

Matrix: Water

Analysis Batch: 127650

Client Sample ID: B-25A

Prep Type: Dissolved

Prep Batch: 127472

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Antimony	ND		1.00	1.01		mg/L		100	75 - 125	
Arsenic	0.022		1.00	1.09		mg/L		107	75 - 125	
Barium	0.33		1.00	1.31		mg/L		99	75 - 125	
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125	
Cadmium	ND		1.00	0.941		mg/L		94	75 - 125	
Chromium	ND		1.00	1.05		mg/L		104	75 - 125	
Cobalt	0.014		1.00	0.990		mg/L		98	75 - 125	
Lead	ND		1.00	0.928		mg/L		93	75 - 125	
Molybdenum	0.062		1.00	1.04		mg/L		98	75 - 125	
Nickel	0.048		1.00	0.988		mg/L		94	75 - 125	
Selenium	ND		1.00	0.952		mg/L		95	75 - 125	
Silver	ND		0.500	0.520		mg/L		104	75 - 125	
Thallium	ND		1.00	0.869		mg/L		87	75 - 125	
Vanadium	ND		1.00	1.06		mg/L		106	75 - 125	
Zinc	0.20		1.00	1.19		mg/L		100	75 - 125	

Lab Sample ID: 720-46794-1 MS

Matrix: Water

Analysis Batch: 127771

Client Sample ID: B-25A

Prep Type: Dissolved

Prep Batch: 127472

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Copper	ND		1.00	0.989		mg/L		99	75 - 125	

Lab Sample ID: 720-46794-1 MSD

Matrix: Water

Analysis Batch: 127650

Client Sample ID: B-25A

Prep Type: Dissolved

Prep Batch: 127472

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits	RPD	Limit
Antimony	ND		1.00	1.01		mg/L		100	75 - 125	0	20	
Arsenic	0.022		1.00	1.09		mg/L		107	75 - 125	0	20	
Barium	0.33		1.00	1.31		mg/L		99	75 - 125	0	20	
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125	0	20	
Cadmium	ND		1.00	0.945		mg/L		94	75 - 125	0	20	
Chromium	ND		1.00	1.04		mg/L		104	75 - 125	1	20	
Cobalt	0.014		1.00	0.990		mg/L		98	75 - 125	0	20	
Lead	ND		1.00	0.927		mg/L		92	75 - 125	0	20	
Molybdenum	0.062		1.00	1.05		mg/L		99	75 - 125	0	20	
Nickel	0.048		1.00	0.989		mg/L		94	75 - 125	0	20	
Selenium	ND		1.00	0.954		mg/L		95	75 - 125	0	20	
Silver	ND		0.500	0.519		mg/L		104	75 - 125	0	20	
Thallium	ND		1.00	0.863		mg/L		86	75 - 125	1	20	
Vanadium	ND		1.00	1.06		mg/L		105	75 - 125	1	20	
Zinc	0.20		1.00	1.19		mg/L		99	75 - 125	0	20	

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# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-46794-1 MSD  
 Matrix: Water  
 Analysis Batch: 127771

Client Sample ID: B-25A  
 Prep Type: Dissolved  
 Prep Batch: 127472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	ND		1.00	1.00		mg/L		100	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 720-127478/2-A  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 127478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.0109		mg/L		109	85 - 115

Lab Sample ID: LCSD 720-127478/3-A  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 127478

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0105		mg/L		105	85 - 115	4	20

Lab Sample ID: MB 720-127441/1-C  
 Matrix: Water  
 Analysis Batch: 127515

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 127478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/12 12:38	12/20/12 17:04	1

## Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: LCS 720-127412/11  
 Matrix: Water  
 Analysis Batch: 127412

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	1.98		ug/L		99	90 - 110

Lab Sample ID: LCS 720-127412/13  
 Matrix: Water  
 Analysis Batch: 127412

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	2.01		ug/L		101	90 - 110

Lab Sample ID: LCSD 720-127412/12  
 Matrix: Water  
 Analysis Batch: 127412

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	2.00	1.98		ug/L		99	90 - 110	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

Lab Sample ID: LCSD 720-127412/14  
Matrix: Water  
Analysis Batch: 127412

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	2.00	2.01		ug/L		100	90 - 110	0	20

Lab Sample ID: MB 720-127506/1-A  
Matrix: Water  
Analysis Batch: 127412

Client Sample ID: Method Blank  
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			12/19/12 16:35	1

Lab Sample ID: LCS 720-127506/2-A  
Matrix: Water  
Analysis Batch: 127412

Client Sample ID: Lab Control Sample  
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	2.00	2.02		ug/L		101	90 - 110

Lab Sample ID: 720-46794-2 MS  
Matrix: Water  
Analysis Batch: 127412

Client Sample ID: B-24A  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND		2.00	2.39		ug/L		101	80 - 120

Lab Sample ID: 720-46794-2 MSD  
Matrix: Water  
Analysis Batch: 127412

Client Sample ID: B-24A  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	ND		2.00	2.35		ug/L		99	80 - 120	2	20

## Method: SM 2520B - Salinity

Lab Sample ID: MB 720-127494/3  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.10		ppth			12/20/12 13:09	1

Lab Sample ID: LCS 720-127494/4  
Matrix: Water  
Analysis Batch: 127494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Salinity	35.0	36.6		ppth		104	90 - 110

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46794-1

## Method: SM 2520B - Salinity (Continued)

Lab Sample ID: LCSD 720-127494/5  
 Matrix: Water  
 Analysis Batch: 127494

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Salinity	35.0	36.5		ppth		104	90 - 110	0	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 720-127513/2  
 Matrix: Water  
 Analysis Batch: 127513

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14.0		10		mg/L			12/20/12 17:39	1

Lab Sample ID: LCS 720-127513/1  
 Matrix: Water  
 Analysis Batch: 127513

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1020		mg/L		102	85 - 115

# QC Association Summary

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

TestAmerica Job ID: 720-46794-1

## GC Semi VOA

### Prep Batch: 127398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

### Analysis Batch: 127448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Silica Gel Cleanup	Water	8015B	127398

### Analysis Batch: 127449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-127398/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	127398
LCSD 720-127398/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	127398
MB 720-127398/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	127398

## Metals

### Prep Batch: 127472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	3005A	
720-46794-1 MS	B-25A	Dissolved	Water	3005A	
720-46794-1 MSD	B-25A	Dissolved	Water	3005A	
720-46794-2	B-24A	Dissolved	Water	3005A	
720-46794-3	B-24B	Dissolved	Water	3005A	
LCS 720-127472/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-127472/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-127441/1-B	Method Blank	Dissolved	Water	3005A	
MB 720-127472/1-A	Method Blank	Total Recoverable	Water	3005A	

### Prep Batch: 127478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	7470A	
720-46794-2	B-24A	Dissolved	Water	7470A	
720-46794-3	B-24B	Dissolved	Water	7470A	
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	

### Analysis Batch: 127515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	7470A	127478
720-46794-2	B-24A	Dissolved	Water	7470A	127478
720-46794-3	B-24B	Dissolved	Water	7470A	127478
LCS 720-127478/2-A	Lab Control Sample	Total/NA	Water	7470A	127478
LCSD 720-127478/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	127478
MB 720-127441/1-C	Method Blank	Dissolved	Water	7470A	127478

### Analysis Batch: 127650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	6010B	127472

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46794-1

## Metals (Continued)

### Analysis Batch: 127650 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1 MS	B-25A	Dissolved	Water	6010B	127472
720-46794-1 MSD	B-25A	Dissolved	Water	6010B	127472
720-46794-2	B-24A	Dissolved	Water	6010B	127472
720-46794-3	B-24B	Dissolved	Water	6010B	127472
LCS 720-127472/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127472
LCSD 720-127472/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127472
MB 720-127441/1-B	Method Blank	Dissolved	Water	6010B	127472
MB 720-127472/1-A	Method Blank	Total Recoverable	Water	6010B	127472

### Analysis Batch: 127771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-1	B-25A	Dissolved	Water	6010B	127472
720-46794-1 MS	B-25A	Dissolved	Water	6010B	127472
720-46794-1 MSD	B-25A	Dissolved	Water	6010B	127472
720-46794-2	B-24A	Dissolved	Water	6010B	127472
720-46794-3	B-24B	Dissolved	Water	6010B	127472
LCS 720-127472/2-A	Lab Control Sample	Total Recoverable	Water	6010B	127472
LCSD 720-127472/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	127472
MB 720-127441/1-B	Method Blank	Dissolved	Water	6010B	127472
MB 720-127472/1-A	Method Blank	Total Recoverable	Water	6010B	127472

## General Chemistry

### Analysis Batch: 127412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Dissolved	Water	7199	
720-46794-2 MS	B-24A	Dissolved	Water	7199	
720-46794-2 MSD	B-24A	Dissolved	Water	7199	
720-46794-3	B-24B	Dissolved	Water	7199	
LCS 720-127412/11	Lab Control Sample	Total/NA	Water	7199	
LCS 720-127412/13	Lab Control Sample	Total/NA	Water	7199	
LCS 720-127506/2-A	Lab Control Sample	Dissolved	Water	7199	
LCSD 720-127412/12	Lab Control Sample Dup	Total/NA	Water	7199	
LCSD 720-127412/14	Lab Control Sample Dup	Total/NA	Water	7199	
MB 720-127506/1-A	Method Blank	Dissolved	Water	7199	

### Analysis Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Total/NA	Water	SM 2520B	
LCS 720-127494/4	Lab Control Sample	Total/NA	Water	SM 2520B	
LCSD 720-127494/5	Lab Control Sample Dup	Total/NA	Water	SM 2520B	
MB 720-127494/3	Method Blank	Total/NA	Water	SM 2520B	

### Analysis Batch: 127513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46794-2	B-24A	Total/NA	Water	SM 2540C	
LCS 720-127513/1	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 720-127513/2	Method Blank	Total/NA	Water	SM 2540C	

TestAmerica Pleasanton



# Lab Chronicle

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

TestAmerica Job ID: 720-46794-1

## Client Sample ID: B-25A

Date Collected: 12/19/12 09:48

Date Received: 12/19/12 17:00

## Lab Sample ID: 720-46794-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:07	SK	TAL SF
Dissolved	Prep	3005A			127472	12/20/12 11:42	ET	TAL SF
Dissolved	Analysis	6010B		1	127650	12/22/12 01:19	CAM	TAL SF
Dissolved	Analysis	6010B		1	127771	12/26/12 18:09	EFH	TAL SF

## Client Sample ID: B-24A

Date Collected: 12/19/12 09:55

Date Received: 12/19/12 17:00

## Lab Sample ID: 720-46794-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			127398	12/19/12 21:08	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127448	12/21/12 00:48	JZ	TAL SF
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:10	SK	TAL SF
Dissolved	Prep	3005A			127472	12/20/12 11:42	ET	TAL SF
Dissolved	Analysis	6010B		1	127650	12/22/12 01:27	CAM	TAL SF
Dissolved	Analysis	6010B		1	127771	12/26/12 18:18	EFH	TAL SF
Dissolved	Analysis	7199		1	127412	12/19/12 19:35	EYT	TAL SF
Total/NA	Analysis	SM 2520B		1	127494	12/20/12 13:32	MJK	TAL SF
Total/NA	Analysis	SM 2540C		1	127513	12/20/12 17:39	DFR	TAL SF

## Client Sample ID: B-24B

Date Collected: 12/19/12 10:00

Date Received: 12/19/12 17:00

## Lab Sample ID: 720-46794-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			127478	12/20/12 12:38	ET	TAL SF
Dissolved	Analysis	7470A		1	127515	12/20/12 17:19	SK	TAL SF
Dissolved	Prep	3005A			127472	12/20/12 11:42	ET	TAL SF
Dissolved	Analysis	6010B		1	127650	12/22/12 01:32	CAM	TAL SF
Dissolved	Analysis	6010B		1	127771	12/26/12 18:22	EFH	TAL SF
Dissolved	Analysis	7199		1	127412	12/19/12 19:47	EYT	TAL SF

**Laboratory References:**

TAL SF = 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: 720-46794-1

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46794-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7470A	Mercury (CVAA)	SW846	TAL SF
7199	Chromium, Hexavalent (IC)	SW846	TAL SF
SM 2520B	Salinity	SM	TAL SF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SF

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

**Laboratory References:**

TAL SF = 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: 720-46794-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46794-1	B-25A	Water	12/19/12 09:48	12/19/12 17:00
720-46794-2	B-24A	Water	12/19/12 09:55	12/19/12 17:00
720-46794-3	B-24B	Water	12/19/12 10:00	12/19/12 17:00

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# Test America

ANALYTICAL TESTING CORPORATION

CHAIN OF CUSTODY **720 46 794**

**143084**

885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308  
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100

1/22/2013

Company Name: <b>Ninyo &amp; Moore</b>	Project: <b>Western Forge &amp; Flange</b>
Mailing Address: <b>1956 Webster St. # 400</b>	Billing Address (if different):
City: <b>Oakland</b> State: <b>CA</b> Zip Code: <b>94612</b>	
Telephone: <b>510.343.3000</b> Fax #:	P.O. #: <b>401823001</b>
Report To: <b>Kris Larson</b> E-Mail Address: <b>klarson@ninyoandmoore.com</b>	QC Data: <input type="checkbox"/> Level II (standard) <input type="checkbox"/> Level III <input type="checkbox"/> Level IV
Sampler: <b>Melissa Terry</b> Date/Time Results Required: <b>5-7 days</b>	Test America Work Order #

Turnaround Time:  10-15 Working Days (Standard TAT)  
 7 Working Days  
 5 Working Days

72 hours  
 48 hours  
 24 hours  
 2-8 hours

**MANDATORY:**  
 SDWA (Drinking Water)  
 CWA (Waste Water)  
 RCRA (Hazardous Waste)  
 Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Test America's Sample #	TPH-hydrocarbon oil	8015M	Hexavalent Chromium Hg/Cd	TTHc-22 metals	6010B	Salinity/TDS	591250B/1001	Comments/Temp. (if required)
1. B-25A	12/19 @ 0948	water	1	250 ml plastic									
2. B-24A	↓ @ 0955	↓	4	many 250 ml plastic		X	X	X	X	X	X	X	TPH-ho w/silica gel cleanup
3. B-24B	↓ @ 1000	↓	2	250 ml plastic									
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Relinquished by/Co.: <b>M Terry / Ninyo &amp; Moore</b>	Received by/Co.: <b>[Signature]</b>	Date/Time/Temp: <b>12/19/12 12:05</b>
Relinquished by/Co.: <b>[Signature]</b>	Received by/Co.: <b>John Miller</b>	Date/Time/Temp: <b>12-19-12 1700</b>
Relinquished by/Co.:	Received by/Co.:	Date/Time/Temp:

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

**Note:** By relinquishing samples to Test America, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days.

2500

White: Test America Yellow: Test America Pink: Client

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## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46794-1

**Login Number: 46794**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Apostol, Anita**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# 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: 720-46796-1

Client Project/Site: Western Forge & Flange

For:

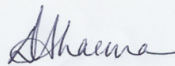
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

12/27/2012 4:16:39 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46796-1

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46796-1

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**Job ID: 720-46796-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-46796-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/19/2012 5:02 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

- 1
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# Detection Summary

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

TestAmerica Job ID: 720-46796-1

## Client Sample ID: B-25A@1-2

## Lab Sample ID: 720-46796-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	5.3		1.9		mg/Kg	4		6010B	Total/NA
Arsenic	9.9		3.9		mg/Kg	4		6010B	Total/NA
Barium	220		1.9		mg/Kg	4		6010B	Total/NA
Cadmium	1.1		0.49		mg/Kg	4		6010B	Total/NA
Chromium	350		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	19		0.78		mg/Kg	4		6010B	Total/NA
Copper	490		5.8		mg/Kg	4		6010B	Total/NA
Lead	240		1.9		mg/Kg	4		6010B	Total/NA
Molybdenum	82		1.9		mg/Kg	4		6010B	Total/NA
Nickel	700		1.9		mg/Kg	4		6010B	Total/NA
Silver	1.5		0.97		mg/Kg	4		6010B	Total/NA
Vanadium	36		1.9		mg/Kg	4		6010B	Total/NA
Zinc	560		5.8		mg/Kg	4		6010B	Total/NA
Mercury	0.088		0.0094		mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-24B@4-5

## Lab Sample ID: 720-46796-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH-Hydraulic Oil Range (C19-C36)	56		50		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: B-24B@6-7

## Lab Sample ID: 720-46796-3

No Detections

## Client Sample ID: B-24A@4-5

## Lab Sample ID: 720-46796-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	13		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	5.1		4.9		ug/Kg	1		8270C SIM	Total/NA
Chrysene	20		4.9		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	18		4.9		ug/Kg	1		8270C SIM	Total/NA
Fluorene	6.5		4.9		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	25		4.9		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	49		4.9		ug/Kg	1		8270C SIM	Total/NA
Pyrene	14		4.9		ug/Kg	1		8270C SIM	Total/NA

## Client Sample ID: B-24A@6-7

## Lab Sample ID: 720-46796-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	6.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	6.0		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	12		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	5.2		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	16		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	22		5.0		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	19		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	28		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	15		5.0		ug/Kg	1		8270C SIM	Total/NA

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46796-1

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

**Client Sample ID: B-24A@4-5**

**Date Collected: 12/19/12 09:37**

**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-4**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Acenaphthylene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Anthracene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Benzo[a]anthracene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Benzo[a]pyrene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Benzo[b]fluoranthene</b>	<b>13</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Benzo[g,h,i]perylene</b>	<b>5.1</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Chrysene</b>	<b>20</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Fluoranthene</b>	<b>18</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Fluorene</b>	<b>6.5</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Naphthalene</b>	<b>25</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Phenanthrene</b>	<b>49</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
<b>Pyrene</b>	<b>14</b>		4.9		ug/Kg		12/24/12 17:22	12/26/12 19:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	67		33 - 120				12/24/12 17:22	12/26/12 19:44	1
Terphenyl-d14	73		35 - 146				12/24/12 17:22	12/26/12 19:44	1

**Client Sample ID: B-24A@6-7**

**Date Collected: 12/19/12 09:39**

**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-5**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Acenaphthylene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Anthracene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Benzo[a]anthracene</b>	<b>6.1</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Benzo[a]pyrene</b>	<b>6.0</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Benzo[b]fluoranthene</b>	<b>12</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Benzo[g,h,i]perylene</b>	<b>5.2</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Chrysene</b>	<b>16</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Fluoranthene</b>	<b>22</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Fluorene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Naphthalene</b>	<b>19</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Phenanthrene</b>	<b>28</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
<b>Pyrene</b>	<b>15</b>		5.0		ug/Kg		12/24/12 17:23	12/26/12 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	50		33 - 120				12/24/12 17:23	12/26/12 20:07	1
Terphenyl-d14	57		35 - 146				12/24/12 17:23	12/26/12 20:07	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46796-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

**Client Sample ID: B-24B@4-5**

**Date Collected: 12/19/12 09:21**

**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-2**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	56		50		mg/Kg		12/21/12 17:08	12/22/12 19:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 1				12/21/12 17:08	12/22/12 19:17	1
p-Terphenyl	100		38 - 148				12/21/12 17:08	12/22/12 19:17	1

**Client Sample ID: B-24B@6-7**

**Date Collected: 12/19/12 09:24**

**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-3**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/21/12 17:08	12/24/12 14:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.05		0 - 1				12/21/12 17:08	12/24/12 14:13	1
p-Terphenyl	75		38 - 148				12/21/12 17:08	12/24/12 14:13	1

**Client Sample ID: B-24A@4-5**

**Date Collected: 12/19/12 09:37**

**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-4**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		49		mg/Kg		12/21/12 17:08	12/22/12 19:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.05		0 - 1				12/21/12 17:08	12/22/12 19:46	1
p-Terphenyl	75		38 - 148				12/21/12 17:08	12/22/12 19:46	1

**Client Sample ID: B-24A@6-7**

**Date Collected: 12/19/12 09:39**

**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-5**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/21/12 17:08	12/22/12 18:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.04		0 - 1				12/21/12 17:08	12/22/12 18:48	1
p-Terphenyl	73		38 - 148				12/21/12 17:08	12/22/12 18:48	1

# Client Sample Results

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

TestAmerica Job ID: 720-46796-1

## Method: 6010B - Metals (ICP)

Client Sample ID: B-25A@1-2

Date Collected: 12/19/12 08:27

Date Received: 12/19/12 17:02

Lab Sample ID: 720-46796-1

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.3		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Arsenic	9.9		3.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Barium	220		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Beryllium	ND		0.39		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Cadmium	1.1		0.49		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Chromium	350		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Cobalt	19		0.78		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Copper	490		5.8		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Lead	240		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Molybdenum	82		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Nickel	700		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Selenium	ND		3.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Silver	1.5		0.97		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Thallium	ND		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Vanadium	36		1.9		mg/Kg		12/20/12 20:16	12/26/12 15:42	4
Zinc	560		5.8		mg/Kg		12/20/12 20:16	12/26/12 15:42	4

# Client Sample Results

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

TestAmerica Job ID: 720-46796-1

## Method: 7471A - Mercury (CVAA)

Client Sample ID: B-25A@1-2  
Date Collected: 12/19/12 08:27  
Date Received: 12/19/12 17:02

Lab Sample ID: 720-46796-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.088		0.0094		mg/Kg		12/20/12 15:56	12/20/12 20:47	1

- 1
- 2
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# QC Sample Results

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

TestAmerica Job ID: 720-46796-1

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

**Lab Sample ID: MB 720-127682/1-A**

**Matrix: Solid**

**Analysis Batch: 127704**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 127682**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Acenaphthylene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Anthracene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Chrysene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Fluoranthene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Fluorene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Naphthalene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Phenanthrene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1
Pyrene	ND		5.0		ug/Kg		12/24/12 17:22	12/26/12 19:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		33 - 120	12/24/12 17:22	12/26/12 19:21	1
Terphenyl-d14	82		35 - 146	12/24/12 17:22	12/26/12 19:21	1

**Lab Sample ID: LCS 720-127682/2-A**

**Matrix: Solid**

**Analysis Batch: 127704**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 127682**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	329	261		ug/Kg		79	49 - 120
Acenaphthylene	329	282		ug/Kg		86	52 - 120
Anthracene	329	313		ug/Kg		95	52 - 120
Benzo[a]anthracene	329	323		ug/Kg		98	52 - 120
Benzo[a]pyrene	329	300		ug/Kg		91	54 - 120
Benzo[b]fluoranthene	329	288		ug/Kg		88	51 - 120
Benzo[g,h,i]perylene	329	307		ug/Kg		93	48 - 120
Benzo[k]fluoranthene	329	285		ug/Kg		87	56 - 120
Chrysene	329	372		ug/Kg		113	40 - 120
Dibenz(a,h)anthracene	329	349		ug/Kg		106	50 - 120
Fluoranthene	329	297		ug/Kg		90	57 - 120
Fluorene	329	279		ug/Kg		85	52 - 120
Indeno[1,2,3-cd]pyrene	329	331		ug/Kg		100	48 - 120
Naphthalene	329	237		ug/Kg		72	46 - 120
Phenanthrene	329	273		ug/Kg		83	48 - 120
Pyrene	329	262		ug/Kg		80	53 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	79		33 - 120
Terphenyl-d14	88		35 - 146

TestAmerica Pleasanton



# QC Sample Results

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

TestAmerica Job ID: 720-46796-1

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

**Lab Sample ID: LCSD 720-127682/3-A**

**Matrix: Solid**

**Analysis Batch: 127704**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 127682**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		Limit
							Limits	RPD	
Acenaphthene	328	265		ug/Kg		81	49 - 120	1	20
Acenaphthylene	328	277		ug/Kg		84	52 - 120	2	20
Anthracene	328	300		ug/Kg		91	52 - 120	4	20
Benzo[a]anthracene	328	310		ug/Kg		94	52 - 120	4	20
Benzo[a]pyrene	328	293		ug/Kg		89	54 - 120	2	20
Benzo[b]fluoranthene	328	273		ug/Kg		83	51 - 120	5	20
Benzo[g,h,i]perylene	328	299		ug/Kg		91	48 - 120	3	20
Benzo[k]fluoranthene	328	291		ug/Kg		89	56 - 120	2	20
Chrysene	328	366		ug/Kg		111	40 - 120	2	20
Dibenz(a,h)anthracene	328	342		ug/Kg		104	50 - 120	2	20
Fluoranthene	328	293		ug/Kg		89	57 - 120	1	20
Fluorene	328	282		ug/Kg		86	52 - 120	1	20
Indeno[1,2,3-cd]pyrene	328	326		ug/Kg		99	48 - 120	2	20
Naphthalene	328	245		ug/Kg		75	46 - 120	3	20
Phenanthrene	328	270		ug/Kg		82	48 - 120	1	20
Pyrene	328	255		ug/Kg		78	53 - 120	3	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	83		33 - 120
Terphenyl-d14	87		35 - 146

**Lab Sample ID: 720-46796-4 MS**

**Matrix: Solid**

**Analysis Batch: 127704**

**Client Sample ID: B-24A@4-5**

**Prep Type: Total/NA**

**Prep Batch: 127682**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	RPD
Acenaphthene	ND		329	247		ug/Kg		74	33 - 120	
Acenaphthylene	ND		329	266		ug/Kg		80	28 - 120	
Anthracene	ND		329	280		ug/Kg		84	36 - 120	
Benzo[a]anthracene	ND		329	282		ug/Kg		86	29 - 120	
Benzo[a]pyrene	ND		329	260		ug/Kg		79	24 - 120	
Benzo[b]fluoranthene	13		329	262		ug/Kg		76	17 - 132	
Benzo[g,h,i]perylene	5.1		329	182		ug/Kg		54	21 - 120	
Benzo[k]fluoranthene	ND		329	263		ug/Kg		80	35 - 120	
Chrysene	20		329	319		ug/Kg		91	29 - 120	
Dibenz(a,h)anthracene	ND		329	244		ug/Kg		73	36 - 120	
Fluoranthene	18		329	275		ug/Kg		78	24 - 120	
Fluorene	6.5		329	271		ug/Kg		81	35 - 120	
Indeno[1,2,3-cd]pyrene	ND		329	221		ug/Kg		66	20 - 126	
Naphthalene	25		329	231		ug/Kg		63	32 - 120	
Phenanthrene	49		329	287		ug/Kg		72	28 - 120	
Pyrene	14		329	241		ug/Kg		69	24 - 123	

Surrogate	MS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	75		33 - 120
Terphenyl-d14	82		35 - 146

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46796-1

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

**Lab Sample ID: 720-46796-4 MSD**

**Matrix: Solid**

**Analysis Batch: 127704**

**Client Sample ID: B-24A@4-5**

**Prep Type: Total/NA**

**Prep Batch: 127682**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Acenaphthene	ND		330	236		ug/Kg		71	33 - 120	5	20
Acenaphthylene	ND		330	252		ug/Kg		76	28 - 120	5	20
Anthracene	ND		330	283		ug/Kg		85	36 - 120	1	20
Benzo[a]anthracene	ND		330	289		ug/Kg		88	29 - 120	2	20
Benzo[a]pyrene	ND		330	266		ug/Kg		81	24 - 120	2	20
Benzo[b]fluoranthene	13		330	261		ug/Kg		75	17 - 132	0	20
Benzo[g,h,i]perylene	5.1		330	190		ug/Kg		56	21 - 120	4	20
Benzo[k]fluoranthene	ND		330	278		ug/Kg		84	35 - 120	6	20
Chrysene	20		330	328		ug/Kg		93	29 - 120	3	20
Dibenz(a,h)anthracene	ND		330	256		ug/Kg		77	36 - 120	5	20
Fluoranthene	18		330	280		ug/Kg		79	24 - 120	2	20
Fluorene	6.5		330	262		ug/Kg		78	35 - 120	3	20
Indeno[1,2,3-cd]pyrene	ND		330	230		ug/Kg		69	20 - 126	4	20
Naphthalene	25		330	228		ug/Kg		61	32 - 120	1	20
Phenanthrene	49		330	292		ug/Kg		73	28 - 120	2	20
Pyrene	14		330	247		ug/Kg		71	24 - 123	3	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	71		33 - 120
Terphenyl-d14	85		35 - 146

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

**Lab Sample ID: MB 720-127577/1-A**

**Matrix: Solid**

**Analysis Batch: 127614**

**Client Sample ID: Method Blank**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127577**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
TPH-Hydraulic Oil Range (C19-C36)	ND		50		mg/Kg		12/21/12 15:54	12/22/12 15:24	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Capric Acid (Surr)	0.003		0 - 1	12/21/12 15:54	12/22/12 15:24	1
p-Terphenyl	102		38 - 148	12/21/12 15:54	12/22/12 15:24	1

**Lab Sample ID: LCS 720-127577/2-A**

**Matrix: Solid**

**Analysis Batch: 127614**

**Client Sample ID: Lab Control Sample**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127577**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Diesel Range Organics [C10-C28]	82.8	42.1		mg/Kg		51	36 - 112

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
p-Terphenyl	116		38 - 148

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46796-1

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

**Lab Sample ID: LCSD 720-127577/3-A**

**Matrix: Solid**

**Analysis Batch: 127614**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 127577**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	83.1	38.1		mg/Kg		46	36 - 112	10	35
<b>Surrogate</b>									
<i>p</i> -Terphenyl			117						38 - 148

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-127523/1-A**

**Matrix: Solid**

**Analysis Batch: 127746**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 127523**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Arsenic	ND		1.0		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Barium	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Beryllium	ND		0.10		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Cadmium	ND		0.13		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Chromium	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Cobalt	ND		0.20		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Copper	ND		1.5		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Lead	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Molybdenum	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Nickel	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Selenium	ND		1.0		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Silver	ND		0.25		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Thallium	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Vanadium	ND		0.50		mg/Kg		12/20/12 20:16	12/26/12 15:05	1
Zinc	ND		1.5		mg/Kg		12/20/12 20:16	12/26/12 15:05	1

**Lab Sample ID: LCS 720-127523/2-A**

**Matrix: Solid**

**Analysis Batch: 127746**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 127523**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	44.9		mg/Kg		90	80 - 120
Arsenic	50.0	44.9		mg/Kg		90	80 - 120
Barium	50.0	47.0		mg/Kg		94	80 - 120
Beryllium	50.0	46.4		mg/Kg		93	80 - 120
Cadmium	50.0	46.6		mg/Kg		93	80 - 120
Chromium	50.0	46.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.9		mg/Kg		94	80 - 120
Copper	50.0	46.5		mg/Kg		93	80 - 120
Lead	50.0	48.3		mg/Kg		97	80 - 120
Molybdenum	50.0	48.7		mg/Kg		97	80 - 120
Nickel	50.0	48.3		mg/Kg		97	80 - 120
Selenium	50.0	44.9		mg/Kg		90	80 - 120
Silver	25.0	23.1		mg/Kg		93	80 - 120

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46796-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 720-127523/2-A**  
**Matrix: Solid**  
**Analysis Batch: 127746**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 127523**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	50.0	48.5		mg/Kg		97	80 - 120
Vanadium	50.0	48.1		mg/Kg		96	80 - 120
Zinc	50.0	45.8		mg/Kg		92	80 - 120

**Lab Sample ID: LCSD 720-127523/3-A**  
**Matrix: Solid**  
**Analysis Batch: 127746**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 127523**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	50.0	45.6		mg/Kg		91	80 - 120	1	20
Arsenic	50.0	45.5		mg/Kg		91	80 - 120	1	20
Barium	50.0	48.1		mg/Kg		96	80 - 120	2	20
Beryllium	50.0	47.7		mg/Kg		95	80 - 120	3	20
Cadmium	50.0	47.1		mg/Kg		94	80 - 120	1	20
Chromium	50.0	47.5		mg/Kg		95	80 - 120	2	20
Cobalt	50.0	47.5		mg/Kg		95	80 - 120	1	20
Copper	50.0	47.5		mg/Kg		95	80 - 120	2	20
Lead	50.0	48.7		mg/Kg		97	80 - 120	1	20
Molybdenum	50.0	49.6		mg/Kg		99	80 - 120	2	20
Nickel	50.0	49.0		mg/Kg		98	80 - 120	1	20
Selenium	50.0	45.5		mg/Kg		91	80 - 120	1	20
Silver	25.0	23.5		mg/Kg		94	80 - 120	2	20
Thallium	50.0	49.2		mg/Kg		98	80 - 120	1	20
Vanadium	50.0	49.0		mg/Kg		98	80 - 120	2	20
Zinc	50.0	46.2		mg/Kg		92	80 - 120	1	20

**Lab Sample ID: LCSSRM 720-127523/25-A**  
**Matrix: Solid**  
**Analysis Batch: 127746**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 127523**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	77.0	36.1		mg/Kg		47	11 - 101
Arsenic	84.9	78.3		mg/Kg		92	69 - 119
Barium	522	474		mg/Kg		91	61 - 117
Beryllium	155	143		mg/Kg		93	56 - 102
Cadmium	42.4	39.7		mg/Kg		94	67 - 118
Chromium	272	255		mg/Kg		94	67 - 121
Cobalt	326	307		mg/Kg		94	64 - 133
Copper	266	251		mg/Kg		95	68 - 126
Lead	283	262		mg/Kg		93	62 - 113
Molybdenum	217	208		mg/Kg		96	62 - 128
Nickel	107	100		mg/Kg		93	65 - 117
Selenium	139	126		mg/Kg		90	63 - 126
Silver	50.9	48.3		mg/Kg		95	51 - 130
Thallium	334	311		mg/Kg		93	64 - 124
Vanadium	143	138		mg/Kg		96	67 - 123
Zinc	580	527		mg/Kg		91	62 - 110

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46796-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-127499/1-A  
 Matrix: Solid  
 Analysis Batch: 127524

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 127499

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		12/20/12 15:04	12/20/12 19:27	1

Lab Sample ID: LCS 720-127499/2-A  
 Matrix: Solid  
 Analysis Batch: 127524

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 127499

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.867		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 720-127499/3-A  
 Matrix: Solid  
 Analysis Batch: 127524

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 127499

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.867		mg/Kg		104	80 - 120	0	20

# QC Association Summary

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

TestAmerica Job ID: 720-46796-1

## GC/MS Semi VOA

### Prep Batch: 127682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-4	B-24A@4-5	Total/NA	Solid	3546	
720-46796-4 MS	B-24A@4-5	Total/NA	Solid	3546	
720-46796-4 MSD	B-24A@4-5	Total/NA	Solid	3546	
720-46796-5	B-24A@6-7	Total/NA	Solid	3546	
LCS 720-127682/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-127682/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-127682/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 127704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-4	B-24A@4-5	Total/NA	Solid	8270C SIM	127682
720-46796-4 MS	B-24A@4-5	Total/NA	Solid	8270C SIM	127682
720-46796-4 MSD	B-24A@4-5	Total/NA	Solid	8270C SIM	127682
720-46796-5	B-24A@6-7	Total/NA	Solid	8270C SIM	127682
LCS 720-127682/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	127682
LCSD 720-127682/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	127682
MB 720-127682/1-A	Method Blank	Total/NA	Solid	8270C SIM	127682

## GC Semi VOA

### Prep Batch: 127577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-2	B-24B@4-5	Silica Gel Cleanup	Solid	3546	
720-46796-3	B-24B@6-7	Silica Gel Cleanup	Solid	3546	
720-46796-4	B-24A@4-5	Silica Gel Cleanup	Solid	3546	
720-46796-5	B-24A@6-7	Silica Gel Cleanup	Solid	3546	
LCS 720-127577/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-127577/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-127577/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

### Analysis Batch: 127614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-2	B-24B@4-5	Silica Gel Cleanup	Solid	8015B	127577
720-46796-4	B-24A@4-5	Silica Gel Cleanup	Solid	8015B	127577
720-46796-5	B-24A@6-7	Silica Gel Cleanup	Solid	8015B	127577
LCS 720-127577/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	127577
LCSD 720-127577/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	127577
MB 720-127577/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	127577

### Analysis Batch: 127643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-3	B-24B@6-7	Silica Gel Cleanup	Solid	8015B	127577

## Metals

### Prep Batch: 127499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	Total/NA	Solid	7471A	
LCS 720-127499/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-127499/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46796-1

## Metals (Continued)

### Prep Batch: 127499 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-127499/1-A	Method Blank	Total/NA	Solid	7471A	

### Prep Batch: 127523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	Total/NA	Solid	3050B	
LCS 720-127523/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-127523/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-127523/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-127523/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 127524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	Total/NA	Solid	7471A	127499
LCS 720-127499/2-A	Lab Control Sample	Total/NA	Solid	7471A	127499
LCSD 720-127499/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	127499
MB 720-127499/1-A	Method Blank	Total/NA	Solid	7471A	127499

### Analysis Batch: 127746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	Total/NA	Solid	6010B	127523
LCS 720-127523/2-A	Lab Control Sample	Total/NA	Solid	6010B	127523
LCSD 720-127523/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	127523
LCSSRM 720-127523/25-A	Lab Control Sample	Total/NA	Solid	6010B	127523
MB 720-127523/1-A	Method Blank	Total/NA	Solid	6010B	127523

# Lab Chronicle

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

TestAmerica Job ID: 720-46796-1

## Client Sample ID: B-25A@1-2

Lab Sample ID: 720-46796-1

Date Collected: 12/19/12 08:27

Matrix: Solid

Date Received: 12/19/12 17:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			127499	12/20/12 15:56	SK	TAL SF
Total/NA	Analysis	7471A		1	127524	12/20/12 20:47	SK	TAL SF
Total/NA	Prep	3050B			127523	12/20/12 20:16	ASB	TAL SF
Total/NA	Analysis	6010B		4	127746	12/26/12 15:42	EFH	TAL SF

## Client Sample ID: B-24B@4-5

Lab Sample ID: 720-46796-2

Date Collected: 12/19/12 09:21

Matrix: Solid

Date Received: 12/19/12 17:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127577	12/21/12 17:08	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127614	12/22/12 19:17	DH	TAL SF

## Client Sample ID: B-24B@6-7

Lab Sample ID: 720-46796-3

Date Collected: 12/19/12 09:24

Matrix: Solid

Date Received: 12/19/12 17:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			127577	12/21/12 17:08	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127643	12/24/12 14:13	DH	TAL SF

## Client Sample ID: B-24A@4-5

Lab Sample ID: 720-46796-4

Date Collected: 12/19/12 09:37

Matrix: Solid

Date Received: 12/19/12 17:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127682	12/24/12 17:22	NP	TAL SF
Total/NA	Analysis	8270C SIM		1	127704	12/26/12 19:44	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127577	12/21/12 17:08	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127614	12/22/12 19:46	DH	TAL SF

## Client Sample ID: B-24A@6-7

Lab Sample ID: 720-46796-5

Date Collected: 12/19/12 09:39

Matrix: Solid

Date Received: 12/19/12 17:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			127682	12/24/12 17:23	NP	TAL SF
Total/NA	Analysis	8270C SIM		1	127704	12/26/12 20:07	ML	TAL SF
Silica Gel Cleanup	Prep	3546			127577	12/21/12 17:08	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	127614	12/22/12 18:48	DH	TAL SF

**Laboratory References:**

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

TestAmerica Pleasanton



# Certification Summary

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

TestAmerica Job ID: 720-46796-1

## 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

- 1
- 2
- 3
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- 14

# Method Summary

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

TestAmerica Job ID: 720-46796-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF

**Protocol References:**

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

**Laboratory References:**

TAL SF = 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: 720-46796-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46796-1	B-25A@1-2	Solid	12/19/12 08:27	12/19/12 17:02
720-46796-2	B-24B@4-5	Solid	12/19/12 09:21	12/19/12 17:02
720-46796-3	B-24B@6-7	Solid	12/19/12 09:24	12/19/12 17:02
720-46796-4	B-24A@4-5	Solid	12/19/12 09:37	12/19/12 17:02
720-46796-5	B-24A@6-7	Solid	12/19/12 09:39	12/19/12 17:02

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CHAIN OF CUSTODY

143085

# Test America

ANALYTICAL TESTING CORPORATION

885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308  
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100

12/27/2012

Company Name: Ninyo & Moore Project: Western Forge & Flange  
 Mailing Address: 1956 Webster St. # 400 Billing Address (if different):  
 City: Oakland State: CA Zip Code: 94612  
 Telephone: 510 343 3000 Fax #: P.O. #: 401 823 001  
 Report To: Kris Larson E-Mail Address: klarson@ninyoandmoore.com QC Data:  Level II (standard)  Level III  Level IV  
 Sampler: Melissa Terny Date/Time Results Required: 1 week (5-7 days) Test America Work Order #

Turnaround Time:  10-15 Working Days (Standard TAT)  
 7 Working Days  
 5 Working Days  
 72 hours  
 48 hours  
 24 hours  
 2-8 hours

**MANDATORY:**  
 SDWA (Drinking Water)  
 CWA (Waste Water)  
 RCRA (Hazardous Waste)  
 Other

**ANALYSES REQUESTED (Please provide method)**

All TPH-ho w/silicagel cleanup

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Test America's Sample #	TPH-hydraulic oil 8015M	Hexavalent Chromium 4ppb	Title 22 Metals 6010B	Salinity/TDS 50250B/6001	PAHs 1277	Comments/Temp. (if required)
1. B-25A @ 1-2	12/19 @ 0827	Soil	2	acetate sleeve glass jar				X			USE SAMPLE in glass for TCLP necessary.
2. B-24B @ 4-5	0921		1	acetate sleeve		X					
3. B-24B @ 6-7	0924		1			X					
4. B-24A @ 4-5	0937		1			X			X		
5. B-24A @ 6-7	0939		1			X			X		
6.											
7.											
8.											
9.											
10.											

Relinquished by/Co.: M. Terny / Ninyo & Moore Received by/Co.: [Signature] Date/Time/Temp: 12/19/12 12:05  
 Relinquished by/Co.: [Signature] Received by/Co.: John Miller Date/Time/Temp: 12-19-12 1700  
 Relinquished by/Co.: Received by/Co.: Date/Time/Temp:

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

**Note:** By relinquishing samples to Test America, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days.

2500

White: Test America

Yellow: Test America

Pink: Client

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## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46796-1

**Login Number: 46796**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Apostol, Anita**

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	

# 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: 720-46796-2

Client Project/Site: Western Forge & Flange

For:

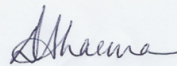
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/8/2013 3:11:38 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46796-2

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46796-2

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**Job ID: 720-46796-2**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
**720-46796-2**

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/19/2012 5:02 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

**Metals**

Method CA WET Citrate: Insufficient sample was provided to perform the leaching procedure with the required 50g for the following sample: 46796-1. The volume of leaching fluid was adjusted proportionally to maintain a 10:1 ratio of leaching fluid to weight of sample. Reporting limits (RLs) are not affected.

No other analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46796-2

**Client Sample ID: B-25A@1-2**

**Lab Sample ID: 720-46796-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	5.2		0.25		mg/L	2.5		6010B	STLC Citrate
Lead	0.41		0.13		mg/L	2.5		6010B	STLC Citrate

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# Client Sample Results

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

TestAmerica Job ID: 720-46796-2

## Method: 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-25A@1-2  
Date Collected: 12/19/12 08:27  
Date Received: 12/19/12 17:02

Lab Sample ID: 720-46796-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	5.2		0.25		mg/L		01/05/13 14:16	01/07/13 11:41	2.5
Lead	0.41		0.13		mg/L		01/05/13 14:16	01/07/13 11:41	2.5

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# Client Sample Results

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

TestAmerica Job ID: 720-46796-2

## General Chemistry

Client Sample ID: B-25A@1-2  
Date Collected: 12/19/12 08:27  
Date Received: 12/19/12 17:02

Lab Sample ID: 720-46796-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.99		mg/Kg		01/04/13 15:00	01/08/13 11:09	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46796-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-128183/1-A  
Matrix: Solid  
Analysis Batch: 128219

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 128183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.010		mg/L		01/05/13 14:16	01/07/13 11:02	1
Lead	ND		0.0050		mg/L		01/05/13 14:16	01/07/13 11:02	1

Lab Sample ID: LCS 720-128183/2-A  
Matrix: Solid  
Analysis Batch: 128219

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 128183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	1.00	0.868		mg/L		87	80 - 120
Lead	1.00	0.869		mg/L		87	80 - 120

Lab Sample ID: LCSD 720-128183/3-A  
Matrix: Solid  
Analysis Batch: 128219

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total Recoverable  
Prep Batch: 128183

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nickel	1.00	0.880		mg/L		88	80 - 120	1	20
Lead	1.00	0.881		mg/L		88	80 - 120	1	20

Lab Sample ID: LB4 720-128074/1-B LB4  
Matrix: Solid  
Analysis Batch: 128219

Client Sample ID: Method Blank  
Prep Type: STLC Citrate  
Prep Batch: 128183

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.25		mg/L		01/05/13 14:16	01/07/13 11:15	2.5
Lead	ND		0.13		mg/L		01/05/13 14:16	01/07/13 11:15	2.5

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 500-174477/1-A  
Matrix: Solid  
Analysis Batch: 174626

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 174477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		1.0		mg/Kg		01/04/13 15:00	01/08/13 11:06	1

Lab Sample ID: LCS 500-174477/2-A  
Matrix: Solid  
Analysis Batch: 174626

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 174477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	10.0	10.3		mg/Kg		103	80 - 120

Lab Sample ID: LCS 500-174477/3-A  
Matrix: Solid  
Analysis Batch: 174626

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 174477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	1110	1180		mg/Kg		106	80 - 120

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-46796-2

## Metals

### Leach Batch: 128074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	STLC Citrate	Solid	CA WET Citrate	
LB4 720-128074/1-B LB4	Method Blank	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 128183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	STLC Citrate	Solid	3005A	128074
LB4 720-128074/1-B LB4	Method Blank	STLC Citrate	Solid	3005A	128074
LCS 720-128183/2-A	Lab Control Sample	Total Recoverable	Solid	3005A	
LCS D 720-128183/3-A	Lab Control Sample Dup	Total Recoverable	Solid	3005A	
MB 720-128183/1-A	Method Blank	Total Recoverable	Solid	3005A	

### Analysis Batch: 128219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	STLC Citrate	Solid	6010B	128183
LB4 720-128074/1-B LB4	Method Blank	STLC Citrate	Solid	6010B	128183
LCS 720-128183/2-A	Lab Control Sample	Total Recoverable	Solid	6010B	128183
LCS D 720-128183/3-A	Lab Control Sample Dup	Total Recoverable	Solid	6010B	128183
MB 720-128183/1-A	Method Blank	Total Recoverable	Solid	6010B	128183

## General Chemistry

### Prep Batch: 174477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	Total/NA	Solid	3060A	
LCS 500-174477/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCS 500-174477/3-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 500-174477/1-A	Method Blank	Total/NA	Solid	3060A	

### Analysis Batch: 174626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-1	B-25A@1-2	Total/NA	Solid	7196A	174477
LCS 500-174477/2-A	Lab Control Sample	Total/NA	Solid	7196A	174477
LCS 500-174477/3-A	Lab Control Sample	Total/NA	Solid	7196A	174477
MB 500-174477/1-A	Method Blank	Total/NA	Solid	7196A	174477

# Lab Chronicle

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

TestAmerica Job ID: 720-46796-2

**Client Sample ID: B-25A@1-2**

**Lab Sample ID: 720-46796-1**

**Date Collected: 12/19/12 08:27**

**Matrix: Solid**

**Date Received: 12/19/12 17:02**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			128074	01/03/13 12:20	JR	TAL SF
STLC Citrate	Prep	3005A			128183	01/05/13 14:16	ASB	TAL SF
STLC Citrate	Analysis	6010B		2.5	128219	01/07/13 11:41	EFH	TAL SF
Total/NA	Prep	3060A			174477	01/04/13 15:00	APW	TAL CHI
Total/NA	Analysis	7196A		1	174626		APW	TAL CHI
					(Start)	01/08/13 11:09		
					(End)	01/08/13 11:10		

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SF = 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: 720-46796-2

## 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

## Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-12
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-13
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13



# Method Summary

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

TestAmerica Job ID: 720-46796-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SF
7196A	Chromium, Hexavalent	SW846	TAL CHI

**Protocol References:**

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

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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

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# Sample Summary

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

TestAmerica Job ID: 720-46796-2

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46796-1	B-25A@1-2	Solid	12/19/12 08:27	12/19/12 17:02

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720-46796-2

Mullen, Joan

**From:** Smith, Micah  
**Sent:** Wednesday, January 02, 2013 11:23 AM  
**To:** Mullen, Joan  
**Subject:** FW: Project #401823001

Can you please log this in?

**MICAH SMITH**  
 Project Manager

TestAmerica  
 THE LEADER IN ENVIRONMENTAL TESTING

1220 Quarry Lane  
 Pleasanton, CA 94566  
 TEL 925.484.1919 ext. 137 | Fax 925.600.3002  
[micah.smith@testamericainc.com](mailto:micah.smith@testamericainc.com)

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**From:** Melissa Terry [<mailto:mterry@ninyoandmoore.com>]  
**Sent:** Wednesday, January 02, 2013 10:55 AM  
**To:** Smith, Micah  
**Cc:** Kris Larson  
**Subject:** FW: Project #401823001

Hello Micah --

Dimple's email indicates she is out of the office until tomorrow and to contact you for urgent matters. Please see the email below.

Thank you --  
 Melissa Terry  
 Ninyo & Moore  
 510-455-1087

---

**From:** Melissa Terry  
**Sent:** Wed 1/2/2013 10:51 AM  
**To:** [Dimple.Sharma@testamericainc.com](mailto:Dimple.Sharma@testamericainc.com)  
**Cc:** Kris Larson  
**Subject:** Project #401823001

Hi Dimple --

We need additional analyses for one of the soil samples collected on 12/19/12. For soil sample B-25A@1-2, please run WET for lead and nickel and please analyze for hexavalent chromium.

Standard TAT.

Thank you --  
 Melissa Terry  
 Ninyo & Moore  
 510-455-1087

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46796-2

**Login Number: 46796**

**List Number: 1**

**Creator: Apostol, Anita**

**List Source: TestAmerica Pleasanton**

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	

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46796-2

**Login Number: 46796**

**List Number: 1**

**Creator: Lunt, Jeff T**

**List Source: TestAmerica Chicago**

**List Creation: 01/04/13 10:37 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
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.	True	



# 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: 720-46796-3

Client Project/Site: Western Forge & Flange

For:

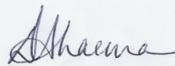
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/22/2013 3:19:48 PM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-46796-3

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-46796-3

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**Job ID: 720-46796-3**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
**720-46796-3**

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/19/2012 5:02 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

**Metals**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-46796-3

Client Sample ID: B-24A@4-5

Lab Sample ID: 720-46796-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	3.6		1.9		mg/Kg	4		6010B	Total/NA
Arsenic	6.9		3.8		mg/Kg	4		6010B	Total/NA
Barium	280		1.9		mg/Kg	4		6010B	Total/NA
Cadmium	2.6		0.48		mg/Kg	4		6010B	Total/NA
Chromium	160		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	19		0.77		mg/Kg	4		6010B	Total/NA
Copper	74		5.8		mg/Kg	4		6010B	Total/NA
Lead	260		1.9		mg/Kg	4		6010B	Total/NA
Molybdenum	5.2		1.9		mg/Kg	4		6010B	Total/NA
Nickel	200		1.9		mg/Kg	4		6010B	Total/NA
Silver	1.1		0.96		mg/Kg	4		6010B	Total/NA
Vanadium	54		1.9		mg/Kg	4		6010B	Total/NA
Zinc	410		5.8		mg/Kg	4		6010B	Total/NA
Mercury	0.095		0.010		mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-46796-3

## Method: 6010B - Metals (ICP)

**Client Sample ID: B-24A@4-5**  
**Date Collected: 12/19/12 09:37**  
**Date Received: 12/19/12 17:02**

**Lab Sample ID: 720-46796-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.6		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Arsenic	6.9		3.8		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Barium	280		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Beryllium	ND		0.38		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Cadmium	2.6		0.48		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Chromium	160		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Cobalt	19		0.77		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Copper	74		5.8		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Lead	260		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Molybdenum	5.2		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Nickel	200		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Selenium	ND		3.8		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Silver	1.1		0.96		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Thallium	ND		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Vanadium	54		1.9		mg/Kg		01/18/13 15:48	01/21/13 22:40	4
Zinc	410		5.8		mg/Kg		01/18/13 15:48	01/21/13 22:40	4

# Client Sample Results

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

TestAmerica Job ID: 720-46796-3

## Method: 7471A - Mercury (CVAA)

Client Sample ID: B-24A@4-5  
Date Collected: 12/19/12 09:37  
Date Received: 12/19/12 17:02

Lab Sample ID: 720-46796-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.095		0.010		mg/Kg		01/17/13 22:07	01/18/13 17:43	1

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# QC Sample Results

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

TestAmerica Job ID: 720-46796-3

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-129026/1-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Arsenic	ND		1.0		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Barium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Beryllium	ND		0.10		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Cadmium	ND		0.13		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Chromium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Cobalt	ND		0.20		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Copper	ND		1.5		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Lead	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Molybdenum	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Nickel	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Selenium	ND		1.0		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Silver	ND		0.25		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Thallium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Vanadium	ND		0.50		mg/Kg		01/18/13 15:48	01/21/13 21:47	1
Zinc	ND		1.5		mg/Kg		01/18/13 15:48	01/21/13 21:47	1

**Lab Sample ID: LCS 720-129026/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	49.9		mg/Kg		100	80 - 120
Arsenic	50.0	49.4		mg/Kg		99	80 - 120
Barium	50.0	50.2		mg/Kg		100	80 - 120
Beryllium	50.0	49.8		mg/Kg		100	80 - 120
Cadmium	50.0	49.1		mg/Kg		98	80 - 120
Chromium	50.0	49.3		mg/Kg		99	80 - 120
Cobalt	50.0	51.1		mg/Kg		102	80 - 120
Copper	50.0	49.8		mg/Kg		100	80 - 120
Lead	50.0	50.6		mg/Kg		101	80 - 120
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120
Nickel	50.0	50.1		mg/Kg		100	80 - 120
Selenium	50.0	48.7		mg/Kg		97	80 - 120
Silver	25.0	25.2		mg/Kg		101	80 - 120
Thallium	50.0	50.5		mg/Kg		101	80 - 120
Vanadium	50.0	49.7		mg/Kg		99	80 - 120
Zinc	50.0	50.0		mg/Kg		100	80 - 120

**Lab Sample ID: LCSD 720-129026/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129143**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 129026**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	49.7		mg/Kg		99	80 - 120	0	20
Arsenic	50.0	49.5		mg/Kg		99	80 - 120	0	20
Barium	50.0	50.4		mg/Kg		101	80 - 120	0	20
Beryllium	50.0	50.0		mg/Kg		100	80 - 120	0	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46796-3

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 720-129026/3-A  
Matrix: Solid  
Analysis Batch: 129143

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 129026

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
							Limits	RPD	Limit
Cadmium	50.0	49.2		mg/Kg		98	80 - 120	0	20
Chromium	50.0	49.6		mg/Kg		99	80 - 120	1	20
Cobalt	50.0	51.1		mg/Kg		102	80 - 120	0	20
Copper	50.0	50.2		mg/Kg		100	80 - 120	1	20
Lead	50.0	50.7		mg/Kg		101	80 - 120	0	20
Molybdenum	50.0	50.4		mg/Kg		101	80 - 120	0	20
Nickel	50.0	50.2		mg/Kg		100	80 - 120	0	20
Selenium	50.0	48.8		mg/Kg		98	80 - 120	0	20
Silver	25.0	25.4		mg/Kg		101	80 - 120	1	20
Thallium	50.0	50.7		mg/Kg		101	80 - 120	0	20
Vanadium	50.0	49.9		mg/Kg		100	80 - 120	0	20
Zinc	50.0	49.9		mg/Kg		100	80 - 120	0	20

Lab Sample ID: LCSSRM 720-129026/25-A  
Matrix: Solid  
Analysis Batch: 129143

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 129026

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	Limit
							Limits	Limit
Antimony	76.3	43.8		mg/Kg		57	11 - 101	
Arsenic	84.1	81.0		mg/Kg		96	69 - 119	
Barium	517	501		mg/Kg		97	61 - 117	
Beryllium	153	141		mg/Kg		92	56 - 102	
Cadmium	42.0	37.8		mg/Kg		90	67 - 118	
Chromium	269	247		mg/Kg		92	67 - 121	
Cobalt	323	326		mg/Kg		101	64 - 133	
Copper	263	248		mg/Kg		94	68 - 126	
Lead	280	267		mg/Kg		95	62 - 113	
Molybdenum	215	208		mg/Kg		97	62 - 128	
Nickel	106	98.1		mg/Kg		93	65 - 117	
Selenium	138	129		mg/Kg		94	63 - 126	
Silver	50.4	53.4		mg/Kg		106	51 - 130	
Thallium	331	314		mg/Kg		95	64 - 124	
Vanadium	142	138		mg/Kg		97	67 - 123	
Zinc	574	555		mg/Kg		97	62 - 110	

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-128950/1-A  
Matrix: Solid  
Analysis Batch: 129034

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 128950

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.010		mg/Kg		01/17/13 22:07	01/18/13 17:25	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-46796-3

## Method: 7471A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 720-128950/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129034**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 128950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.850		mg/Kg		102	80 - 120

**Lab Sample ID: LCSD 720-128950/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129034**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 128950**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.858		mg/Kg		103	80 - 120	1	20



# QC Association Summary

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

TestAmerica Job ID: 720-46796-3

## Metals

### Prep Batch: 128950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-4	B-24A@4-5	Total/NA	Solid	7471A	
LCS 720-128950/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-128950/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-128950/1-A	Method Blank	Total/NA	Solid	7471A	

### Prep Batch: 129026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-4	B-24A@4-5	Total/NA	Solid	3050B	
LCS 720-129026/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-129026/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-129026/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-129026/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 129034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-4	B-24A@4-5	Total/NA	Solid	7471A	128950
LCS 720-128950/2-A	Lab Control Sample	Total/NA	Solid	7471A	128950
LCSD 720-128950/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	128950
MB 720-128950/1-A	Method Blank	Total/NA	Solid	7471A	128950

### Analysis Batch: 129143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-46796-4	B-24A@4-5	Total/NA	Solid	6010B	129026
LCS 720-129026/2-A	Lab Control Sample	Total/NA	Solid	6010B	129026
LCSD 720-129026/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	129026
LCSSRM 720-129026/25-A	Lab Control Sample	Total/NA	Solid	6010B	129026
MB 720-129026/1-A	Method Blank	Total/NA	Solid	6010B	129026



# Lab Chronicle

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

TestAmerica Job ID: 720-46796-3

**Client Sample ID: B-24A@4-5**

**Lab Sample ID: 720-46796-4**

**Date Collected: 12/19/12 09:37**

**Matrix: Solid**

**Date Received: 12/19/12 17:02**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			128950	01/17/13 22:07	CDT	TAL SF
Total/NA	Analysis	7471A		1	129034	01/18/13 17:43	SK	TAL SF
Total/NA	Prep	3050B			129026	01/18/13 15:48	CDT	TAL SF
Total/NA	Analysis	6010B		4	129143	01/21/13 22:40	SK	TAL SF

**Laboratory References:**

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

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# Certification Summary

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

TestAmerica Job ID: 720-46796-3

## 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

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# Method Summary

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

TestAmerica Job ID: 720-46796-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF

**Protocol References:**

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

**Laboratory References:**

TAL SF = 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: 720-46796-3

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-46796-4	B-24A@4-5	Solid	12/19/12 09:37	12/19/12 17:02

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Sharma, Dimple

720-46754-2

**From:** Kris Larson [klarson@ninyoandmoore.com]  
**Sent:** Thursday, January 17, 2013 11:30 AM  
**To:** Sharma, Dimple  
**Cc:** Melissa Terry  
**Subject:** RE: Additional metals analysis for Western Forge & Flange

720-46736-2

Dimple,  
Also please analyze Title 22 Metals in sample B8C@4-5.  
Thanks,

Kris M. Larson, P.G.  
Principal Geologist  
**Ninyo & Moore**  
Geotechnical & Environmental Sciences Consultants  
1956 Webster Street, Suite 400  
Oakland, California 94612  
(510) 343-3000 (x5212)  
(510) 343-3001 (Fax)  
(510) 301-9446 (Cell)  
klarson@ninyoandmoore.com

New San Jose office  
2149 O'Toole Avenue, Suite 10  
San Jose, CA 95131  
(408) 435-9000  
(408) 435-9006 (Fax)

**Experience · Quality · Commitment**

-----Original Message-----

**From:** Kris Larson  
**Sent:** Thursday, January 17, 2013 10:49 AM  
**To:** 'dimple.sharma@testamericainc.com'  
**Cc:** Melissa Terry  
**Subject:** Additional metals analysis for Western Forge & Flange

Dimple,  
Please analyze the following samples from your lab reports dated 12/24 to 12/27 for Title 22 Metals using EPA Method 6010B using a normal 5-7 day TAT.

- B22A@4-5
- B10A@0.5-1
- B15C@1
- B9A@7-8
- B12A@4-5
- B15A@4-5
- B5A@4-5
- B24A@4-5

Thanks,

Kris M. Larson, P.G.



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-46796-3

**Login Number: 46796**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Apostol, Anita**

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	

# 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: 720-47202-1

Client Project/Site: Western Forge & Flange

For:

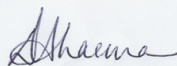
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Mr. Kris Larsen



Authorized for release by:

1/22/2013 9:32:35 AM

Dimple Sharma

Project Manager I

[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

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

TestAmerica Job ID: 720-47202-1

### 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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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: 720-47202-1

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**Job ID: 720-47202-1**

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**Laboratory: TestAmerica Pleasanton**

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**Narrative**

**Job Narrative**  
720-47202-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 1/16/2013 5:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

**Metals**

No analytical or quality issues were noted.

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# Detection Summary

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

TestAmerica Job ID: 720-47202-1

## Client Sample ID: B25-A-S1-1.0

Lab Sample ID: 720-47202-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	19		1.9		mg/Kg	4		6010B	Total/NA
Nickel	47		1.9		mg/Kg	4		6010B	Total/NA
Chromium	29		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B25-A-S2-1.0

Lab Sample ID: 720-47202-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	59		1.9		mg/Kg	4		6010B	Total/NA
Nickel	120		1.9		mg/Kg	4		6010B	Total/NA
Chromium	81		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B25-A-E-1.0

Lab Sample ID: 720-47202-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	48		1.9		mg/Kg	4		6010B	Total/NA
Nickel	2500		1.9		mg/Kg	4		6010B	Total/NA
Chromium	310		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B25-A-N-1.0

Lab Sample ID: 720-47202-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18		1.9		mg/Kg	4		6010B	Total/NA
Nickel	140		1.9		mg/Kg	4		6010B	Total/NA
Chromium	37		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B25-A-W1-1.0

Lab Sample ID: 720-47202-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17		1.9		mg/Kg	4		6010B	Total/NA
Nickel	130		1.9		mg/Kg	4		6010B	Total/NA
Chromium	38		1.9		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B25-A-W2-1.0

Lab Sample ID: 720-47202-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	15		2.0		mg/Kg	4		6010B	Total/NA
Nickel	39		2.0		mg/Kg	4		6010B	Total/NA
Chromium	26		2.0		mg/Kg	4		6010B	Total/NA

## Client Sample ID: B25-A-3.0

Lab Sample ID: 720-47202-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	14		1.8		mg/Kg	4		6010B	Total/NA
Nickel	240		1.8		mg/Kg	4		6010B	Total/NA
Chromium	210		1.8		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-47202-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: B25-A-S1-1.0**

**Date Collected: 01/16/13 10:15**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-1**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:24	4
Nickel	47		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:24	4
Chromium	29		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:24	4

**Client Sample ID: B25-A-S2-1.0**

**Date Collected: 01/16/13 10:56**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-5**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	59		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:28	4
Nickel	120		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:28	4
Chromium	81		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:28	4

**Client Sample ID: B25-A-E-1.0**

**Date Collected: 01/16/13 08:53**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-9**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	48		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:32	4
Nickel	2500		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:32	4
Chromium	310		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:32	4

**Client Sample ID: B25-A-N-1.0**

**Date Collected: 01/16/13 13:15**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-13**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:37	4
Nickel	140		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:37	4
Chromium	37		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:37	4

**Client Sample ID: B25-A-W1-1.0**

**Date Collected: 01/16/13 14:03**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-17**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:41	4
Nickel	130		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:41	4
Chromium	38		1.9		mg/Kg		01/18/13 09:36	01/18/13 21:41	4

**Client Sample ID: B25-A-W2-1.0**

**Date Collected: 01/16/13 14:38**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-21**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	15		2.0		mg/Kg		01/18/13 09:40	01/18/13 21:46	4
Nickel	39		2.0		mg/Kg		01/18/13 09:40	01/18/13 21:46	4
Chromium	26		2.0		mg/Kg		01/18/13 09:40	01/18/13 21:46	4

**Client Sample ID: B25-A-3.0**

**Date Collected: 01/16/13 12:48**

**Date Received: 01/16/13 17:05**

**Lab Sample ID: 720-47202-25**

**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14		1.8		mg/Kg		01/18/13 09:40	01/18/13 21:50	4
Nickel	240		1.8		mg/Kg		01/18/13 09:40	01/18/13 21:50	4
Chromium	210		1.8		mg/Kg		01/18/13 09:40	01/18/13 21:50	4

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-47202-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-128973/1-A**  
**Matrix: Solid**  
**Analysis Batch: 129041**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 128973**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		01/18/13 09:36	01/18/13 20:19	1
Nickel	ND		0.50		mg/Kg		01/18/13 09:36	01/18/13 20:19	1
Chromium	ND		0.50		mg/Kg		01/18/13 09:36	01/18/13 20:19	1

**Lab Sample ID: LCS 720-128973/2-A**  
**Matrix: Solid**  
**Analysis Batch: 129041**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 128973**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	50.4		mg/Kg		101	80 - 120
Nickel	50.0	49.7		mg/Kg		99	80 - 120
Chromium	50.0	50.2		mg/Kg		100	80 - 120

**Lab Sample ID: LCSD 720-128973/3-A**  
**Matrix: Solid**  
**Analysis Batch: 129041**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 128973**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	50.0	49.9		mg/Kg		100	80 - 120	1	20
Nickel	50.0	49.2		mg/Kg		98	80 - 120	1	20
Chromium	50.0	49.5		mg/Kg		99	80 - 120	1	20

**Lab Sample ID: LCSSRM 720-128973/10-A**  
**Matrix: Solid**  
**Analysis Batch: 129041**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 128973**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	280	263		mg/Kg		94	62 - 113
Nickel	106	98.8		mg/Kg		93	65 - 117
Chromium	269	260		mg/Kg		97	67 - 121

# QC Association Summary

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

TestAmerica Job ID: 720-47202-1

## Metals

### Prep Batch: 128973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47202-1	B25-A-S1-1.0	Total/NA	Solid	3050B	
720-47202-5	B25-A-S2-1.0	Total/NA	Solid	3050B	
720-47202-9	B25-A-E-1.0	Total/NA	Solid	3050B	
720-47202-13	B25-A-N-1.0	Total/NA	Solid	3050B	
720-47202-17	B25-A-W1-1.0	Total/NA	Solid	3050B	
720-47202-21	B25-A-W2-1.0	Total/NA	Solid	3050B	
720-47202-25	B25-A-3.0	Total/NA	Solid	3050B	
LCS 720-128973/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-128973/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-128973/10-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-128973/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 129041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-128973/2-A	Lab Control Sample	Total/NA	Solid	6010B	128973
LCSD 720-128973/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	128973
LCSSRM 720-128973/10-A	Lab Control Sample	Total/NA	Solid	6010B	128973
MB 720-128973/1-A	Method Blank	Total/NA	Solid	6010B	128973

### Analysis Batch: 129073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47202-1	B25-A-S1-1.0	Total/NA	Solid	6010B	128973
720-47202-5	B25-A-S2-1.0	Total/NA	Solid	6010B	128973
720-47202-9	B25-A-E-1.0	Total/NA	Solid	6010B	128973
720-47202-13	B25-A-N-1.0	Total/NA	Solid	6010B	128973
720-47202-17	B25-A-W1-1.0	Total/NA	Solid	6010B	128973
720-47202-21	B25-A-W2-1.0	Total/NA	Solid	6010B	128973
720-47202-25	B25-A-3.0	Total/NA	Solid	6010B	128973

# Lab Chronicle

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

TestAmerica Job ID: 720-47202-1

**Client Sample ID: B25-A-S1-1.0**

**Lab Sample ID: 720-47202-1**

Date Collected: 01/16/13 10:15

Matrix: Solid

Date Received: 01/16/13 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:36	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:24	SK	TAL SF

**Client Sample ID: B25-A-S2-1.0**

**Lab Sample ID: 720-47202-5**

Date Collected: 01/16/13 10:56

Matrix: Solid

Date Received: 01/16/13 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:36	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:28	SK	TAL SF

**Client Sample ID: B25-A-E-1.0**

**Lab Sample ID: 720-47202-9**

Date Collected: 01/16/13 08:53

Matrix: Solid

Date Received: 01/16/13 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:36	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:32	SK	TAL SF

**Client Sample ID: B25-A-N-1.0**

**Lab Sample ID: 720-47202-13**

Date Collected: 01/16/13 13:15

Matrix: Solid

Date Received: 01/16/13 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:36	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:37	SK	TAL SF

**Client Sample ID: B25-A-W1-1.0**

**Lab Sample ID: 720-47202-17**

Date Collected: 01/16/13 14:03

Matrix: Solid

Date Received: 01/16/13 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:36	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:41	SK	TAL SF

**Client Sample ID: B25-A-W2-1.0**

**Lab Sample ID: 720-47202-21**

Date Collected: 01/16/13 14:38

Matrix: Solid

Date Received: 01/16/13 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:40	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:46	SK	TAL SF

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-47202-1

**Client Sample ID: B25-A-3.0**

**Lab Sample ID: 720-47202-25**

**Date Collected: 01/16/13 12:48**

**Matrix: Solid**

**Date Received: 01/16/13 17:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			128973	01/18/13 09:40	JR	TAL SF
Total/NA	Analysis	6010B		4	129073	01/18/13 21:50	SK	TAL SF

**Laboratory References:**

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

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# Certification Summary

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

TestAmerica Job ID: 720-47202-1

## 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

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# Method Summary

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

TestAmerica Job ID: 720-47202-1

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Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SF

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**Protocol References:**

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

**Laboratory References:**

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

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# Sample Summary

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

TestAmerica Job ID: 720-47202-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-47202-1	B25-A-S1-1.0	Solid	01/16/13 10:15	01/16/13 17:05
720-47202-5	B25-A-S2-1.0	Solid	01/16/13 10:56	01/16/13 17:05
720-47202-9	B25-A-E-1.0	Solid	01/16/13 08:53	01/16/13 17:05
720-47202-13	B25-A-N-1.0	Solid	01/16/13 13:15	01/16/13 17:05
720-47202-17	B25-A-W1-1.0	Solid	01/16/13 14:03	01/16/13 17:05
720-47202-21	B25-A-W2-1.0	Solid	01/16/13 14:38	01/16/13 17:05
720-47202-25	B25-A-3.0	Solid	01/16/13 12:48	01/16/13 17:05



4.3°  
720-47202

Regulatory Program:  DW  NPDES  RCRA  Other:

<b>Client Contact</b>		<b>Project Manager: Melissa Terry</b>			<b>Site Contact: Melissa Terry</b>		<b>Date: 1/16/12</b>		<b>COC No:</b>			
Ninyo & Moore		Tel/Fax:			Lab Contact:		Carrier:		of COCs			
1956 Webster Street, Suite 400		<b>Analysis Turnaround Time</b>			Filtered Sample (Y/N) Composite = C / Grab = G Cr, Pb, and Ni EPA Method 6010B				<b>For Lab Use Only:</b>			
Oakland, CA 94612		Calendar (C) or Work Days (W)									Walk-in Client:	
510-633-5640		TAT if different from Below									Lab Sampling:	
(xxx) xxx-xxxx FAX		<input type="checkbox"/> 2 weeks									Job / SDG No.:	
Project Name: Western Forge & Flange		<input checked="" type="checkbox"/> 1 week					Sampler:					
Site: 540 Cleveland Avenue		<input type="checkbox"/> 2 days							Sample Specific Notes:			
P O #		<input type="checkbox"/> 1 day										
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Composite = C / Grab = G	Cr, Pb, and Ni EPA Method 6010B				
B25-A-S1-1.0	16-Jan	10:15	soil		1	G	X					
B25-A-S1-2.0	16-Jan	10:24	soil		1	G	X			Hold		
B25-A-S1-3.0	16-Jan	10:31	soil		1	G	X			Hold		
B25-A-S1-4.0	16-Jan	10:37	soil		1	G	X			Hold		
B25-A-S2-1.0	16-Jan	10:56	soil		1	G	X			Hold		
B25-A-S2-2.0	16-Jan	11:28	soil		1	G	X			Hold		
B25-A-S <sup>2</sup> 3.0	16-Jan	11:42	soil		1	G	X			Hold		
B25-A-S <sup>2</sup> 4.0	16-Jan	<del>10:37</del> 11:51	soil		1	G	X			Hold		
B25-A-E-1.0	16-Jan	8:53	soil		1	G	X			Hold		
B25-A-E-2.0	16-Jan	9:07	soil		1	G	X			Hold		
B25-A-E-3.0	16-Jan	9:20	soil		1	G	X			Hold		
B25-A-E-4.0	16-Jan	9:31	soil		1	G	X			Hold		
<b>Preservation Used:</b> 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>						
<b>Possible Hazard Identification:</b> 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.						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown												
<b>Special Instructions/QC Requirements &amp; Comments:</b>												
Relinquished by: Brian Povan		Company: Ninyo & Moore		Date/Time: 1/16/13		Received by: [Signature]		Company: TA		Date/Time: 1-16-13 1610		
Relinquished by: [Signature]		Company: TA		Date/Time: 1-16-13		Received by:		Company:		Date/Time:		
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: [Signature]		Company: TestAmerica		Date/Time: 1-16-13 1705		

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4.3°

**Chain of Custody Record**

**720-47202**

Regulatory Program:  DW  NPDES  RCRA  Other:

<b>Client Contact</b>		<b>Project Manager: Melissa Terry</b>			<b>Site Contact: Melissa Terry</b>		<b>Date: 1/16/12</b>		<b>COC No:</b>		
Ninyo & Moore 1956 Webster Street, Suite 400 Oakland, CA 94612 510-633-5640 (xxx) xxx-xxxx FAX Project Name: Western Forge & Flange Site: 540 Cleveland Avenue P O #		Tel/Fax:			Lab Contact:		Carrier:		_____ of _____ COCs		
		<b>Analysis Turnaround Time</b>			Filtered Sample (Y/N) Composite = C / Grab = G Cr, Pb, and Ni EPA Method 6010B				<b>For Lab Use Only:</b>		
		Calendar (C) or Work Days (W) TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sampler: _____		
<b>Sample Identification</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type</b>	<b>Matrix</b>	<b># of Cont.</b>			<b>Sample Specific Notes:</b>		
B25-A-N-1.0		16-Jan	1:15	soil		1	G	x	Hold		
B25-A-N-2.0		16-Jan	1:29	soil		1	G	x	Hold		
B25-A-N-3.0		16-Jan	1:42	soil		1	G	x	Hold		
B25-A-N-4.0		16-Jan	2:03	1:47	soil	1	G	x	Hold		
B25-A-W1-1.0		16-Jan	2:08	2:03	soil	1	G	x	Hold		
B25-A-W1-2.0		16-Jan	2:17	2:08	soil	1	G	x	Hold		
B25-A-W1-3.0		16-Jan	2:26	2:17	soil	1	G	x	Hold		
B25-A-W1-4.0		16-Jan	<del>2:26</del>	2:26	soil	1	G	x	Hold		
B25-A-W2-1.0		16-Jan	2:38		soil	1	G	x	Hold		
B25-A-W2-2.0		16-Jan	2:47		soil	1	G	x	Hold		
B25-A-W2-3.0		16-Jan	2:57		soil	1	G	x	Hold		
B25-A-W2-4.0		16-Jan	3:03		soil	1	G	x	Hold		
<b>Preservation Used:</b> 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>				
<b>Possible Hazard Identification:</b> 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. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
<b>Special Instructions/QC Requirements &amp; Comments:</b>											
Relinquished by: <i>Brian Roman</i>		Company: NINYO & MOORE		Date/Time: 1/16/13		Received by: <i>[Signature]</i>		Company: TA		Date/Time: 1-16-13 1610	
Relinquished by: <i>[Signature]</i>		Company: TA		Date/Time: 1/16/13		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: <i>John Miller</i>		Company: <i>TestAmerica</i>		Date/Time: 1-16-13 1705	



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-47202-1

**Login Number: 47202**

**List Number: 1**

**Creator: Tacmo, David**

**List Source: TestAmerica Pleasanton**

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	

**APPENDIX E**

**STATISTICAL ANALYSIS OF COBALT BACKGROUND CONCENTRATIONS AND  
CLEANUP GOAL**



**Table E-1 - Evaluation of Cobalt Cleanup Goal Using Quartile Analysis**

Sample ID	Cobalt (mg/kg)	<i>Descriptive Statistics for Entire Data Set</i>	
B-1 @ 0.5	8.4	Number of Samples	25
B-2 @ 0.5	5.8	Minimum	2.7
B-4 @ 5.0	5.2	Maximum	29
B-7 @ 0.5	8	Mean	9.5
B-8A @ 1.0	15	First Quartile (Q1)	5.3
B-9 @ 0.5	5.8	Median	7.3
B-9 @ 5.0	4.2	Third Quartile (Q3)	12.4
B-10 @ 5.0	2.7	95th Percentile	23.3
B-12 @ 5.0	7.0	98th Percentile	26.7
B-14 @ 1.0	4.7	95% UCL of Mean	11.7
B-19 @ 0.5	13	Standard Deviation	6.2
B-24 @ 1.0	12	<b>Fourth Spread (Fs) = Q3-Q1 = 12.4 - 5.3 = 7.1</b>	
B-24 @ 2.0	12		
B-24 @ 3.0	11		
B-5A @ 4-5	4.8	<b>Upper Bound for Background Cobalt = Q3 + (Fs x 1.5) = 12.4 + (7.1 x 1.5) = 23</b>	
B-8C @4-5	12	<b>Outliers = Concentrations Exceeding 23 mg/kg</b>	
B-9A @ 7-8	6.1		
B-10A @ 0.5-1	<b>29</b>	<i>Descriptive Statistics for Data Set With Outliers Removed</i>	
B-12A @ 4-5	5.4		
B-15A @ 4-5	7.6	Number of Samples	24
B-15C @ 1	4.5	Minimum	2.7
B-22A @ 4-5	5.2	Maximum	19
B-24A @ 4-5	19	Mean	8.6
B-25A @ 1-2	19	Standard Deviation	4.7
		98th Percentile	20
		<b>Cleanup Goal = 98th Percentile of Data Set with Outliers Removed</b>	
		<b>Cleanup Goal = 20 mg/kg</b>	

**Notes:**

\* indicates duplicate of preceeding sample

**Bold** - indicates the concentration is considered an outlier

Figure E-1- Percentiles of Cobalt Concentrations for Entire Data Set

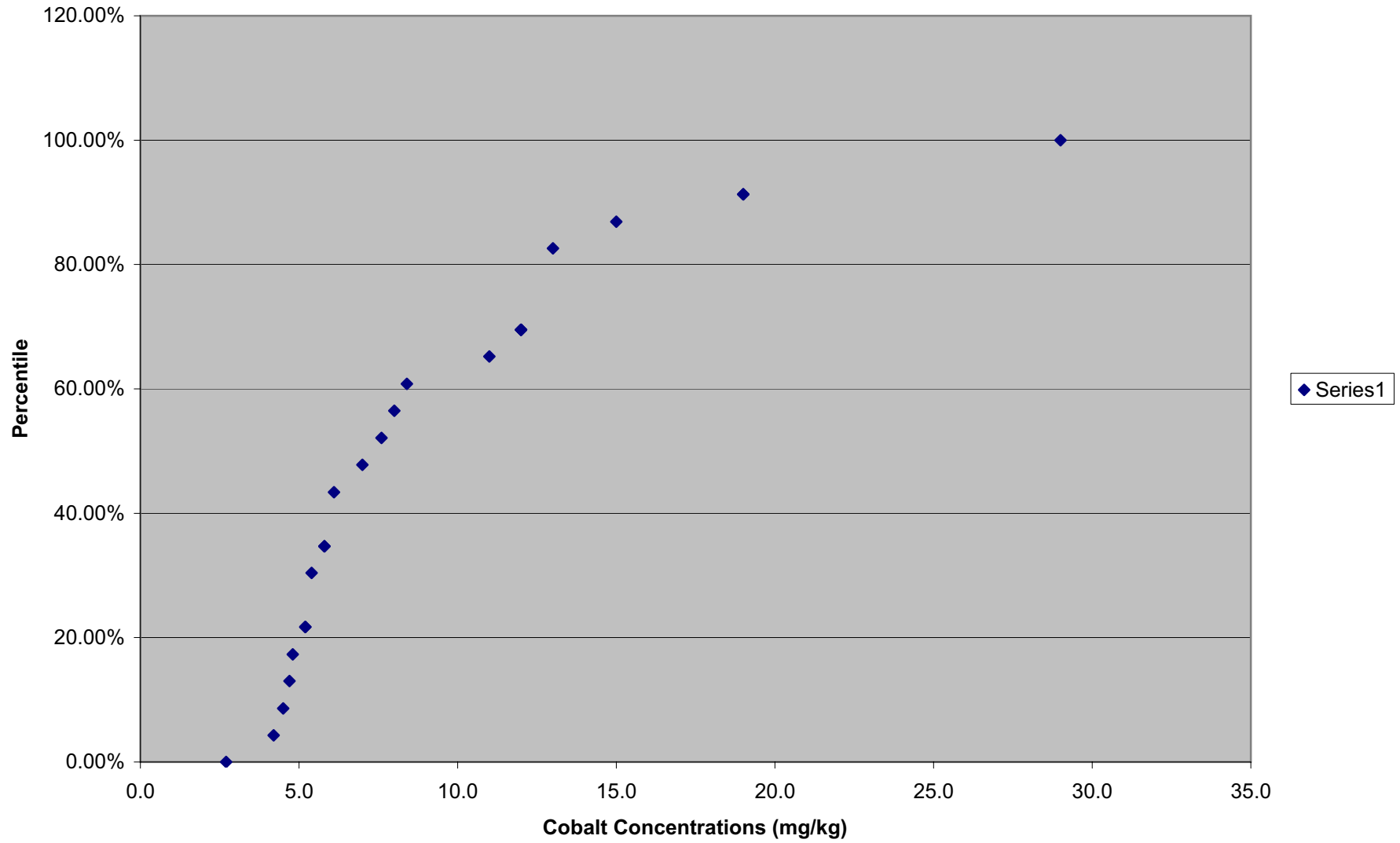


Figure E-2 - Cobalt Concentration Percentiles with Outliers Removed from Data Set

