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**4<sup>TH</sup> QUARTER 2014 GROUNDWATER MONITORING REPORT  
AND REQUEST FOR SITE CLOSURE  
FORMER WESTERN FORGE & FLANGE FACILITY  
540 CLEVELAND AVENUE  
ALBANY, CALIFORNIA  
RO#3009**

**PREPARED FOR:**

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

**PREPARED BY:**

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

December 04, 2014  
Project No. 401823001

December 04, 2014  
Project No. 401823001

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

Subject: 4<sup>th</sup> Quarter 2014 Groundwater Monitoring Report  
And Request for Site Closure  
Former Western Forge & Flange Facility  
540 Cleveland Avenue  
Albany, California  
RO#3009

Dear Mr. Pierce:

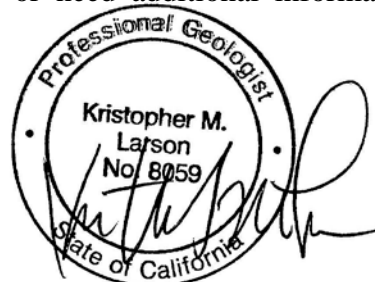
Ninyo & Moore is pleased to present this 4<sup>th</sup> Quarter 2014 Groundwater Monitoring Report and Request for Site Closure, for the property located at 540 Cleveland Avenue in Albany, California. This report documents the recent groundwater monitoring well sampling activities, laboratory analytical results, and our conclusions and recommendations regarding the environmental status of the site.

Should you have any questions regarding this report or need additional information, please contact the undersigned at your convenience.

Sincerely,  
**NINYO & MOORE**



Forrest S. McFarland, PG 7984  
Senior Project Environmental Geologist



Kris M. Larson, PG 8059  
Principal Environmental Geologist

CRA/KML/cio

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

540 Cleveland Avenue  
Albany, California

December 05, 2014  
Project No. 401823001

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December 5, 2014  
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  
4<sup>th</sup> Quarter 2014 Groundwater Monitoring Report  
And Request for Site Closure  
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**

Ninyo & Moore has prepared this 4<sup>th</sup> Quarter 2014 Groundwater Monitoring Report and Request for Site Closure to document the groundwater monitoring activities recently performed at the former Western Forge & Flange facility located at 540 Cleveland Avenue in Albany, California (site). The groundwater monitoring activities were performed in general accordance with the guidelines presented in Ninyo & Moore's Revised Data Gap Investigation Report and Corrective Action Plan (CAP) dated May 15, 2013, and CAP Addendum dated July 22, 2013, which were approved by Alameda County Environmental Health (ACEH) in an e-mail dated October 14, 2013.

## **2. SITE BACKGROUND**

The following sections describe the location, description, and historical background of the site.

### **2.1. Site Description**

The subject site is located at 540 Cleveland Avenue in Albany, California (Figure 1). The site is located in a commercial/industrial area of Albany between the Interstate 80 and 580 Freeways, and immediately east of a Union Pacific Rail Road (UPRR) right of way (Figure 2). The site is bordered to the north by a heavy industrial property (Albany Steel), to the south by a commercial building (currently occupied by the City of Albany and used as a maintenance yard), and to the east by Cleveland Avenue. The site is approximately 1.0 acre and recently consisted of an approximately 25,000 square-foot building with concrete and asphalt paved areas. Western Forge & Flange manufactured flanges at the site from 1944 until it moved operations to Texas in 2007. The site building and the majority of pavement surfaces were demolished and removed in June and July of 2013. Several subsurface concrete pits were also demolished during building demolition activities.

### **2.2. 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.

The ground surface elevation of the site ranges from approximately 12 to 16 feet above mean sea level (MSL), and ground surface is gently sloped towards the west-southwest. The site sedimentology observed during excavation activities consisted of approximately 2 to 6 feet of fill material over laying native silty clay (Bay Mud) deposits. The margin of the San Francisco Bay historically crossed through the site, with the western portion of the site historically being tidal wetlands. Fill material was observed to be thinner (extending to approximately 2 feet below ground surface [bgs]) in the central portion of the site, and thicker (extending to approximately 6 feet bgs) in the western portion of the site. The upper 1 to 2 feet of fill material was observed to generally consist of brown sand with gravel and clay, and the lower portion of fill was observed to generally consist of dark gray silt with sand and clay. Bricks, concrete rubble, and other debris were observed in areas throughout the fill material.

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 during previous investigations, shallow groundwater was encountered between 2.5 and 5.5 feet bgs in all but one of the borings. Groundwater was encountered at 1 foot bgs in one boring in the northwestern portion of the site, which was attributed to a very shallow, perched groundwater zone that has been documented in previous environmental assessments. During excavation activities, groundwater was observed at approximately 4 feet bgs in the south-central portion of the site, and at approximately 6 feet bgs in the western portion of the site. Due to the site's proximity to the San Francisco Bay, tidal fluctuation may affect groundwater depth and flow direction/gradient. The depth and elevation of groundwater measured monitoring wells, and the inferred groundwater flow direction and gradient are described in Section 2.6 below.

### **2.3. Previous Environmental Assessments and Remedial Action**

The site has been the subject of several environmental assessments dating back to 1984. Based on data generated during episodes of site assessment, the site was determined to be impacted with constituents of concern (COCs) including arsenic, chromium, copper, lead, molybdenum, nickel, zinc, polycyclic aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons as hydraulic oil (TPHho) at elevated concentrations at various locations throughout the site. In order to protect human health and the environment, and allow the site to be redeveloped for future commercial/industrial land use, a CAP was prepared for the site by Ninyo & Moore. The CAP included an evaluation of remedial alternatives for the site, and excavation and off-site disposal of impacted soil was selected as the appropriate remedial alternative. The CAP was implemented between October 2013 and January 2014, as documented in Ninyo & Moore's Removal Action Completion Report (RACR) dated February 6, 2014, which has been submitted to ACEH for review.

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

An initial groundwater monitoring event was performed on December 5, 2013. A relatively minor concentration of TPHho (below the Cleanup Goal [CG]) was detected in monitoring well MW-1, and TPHho was not detected in monitoring wells MW-2 or MW-3. Only minor concentrations (below CGs) of the PAHs acenaphthene and naphthalene were detected monitoring well MW-1, and no PAHs were detected in monitoring wells MW-2 or MW-3. Concentrations of several metals (cobalt, copper, lead, molybdenum, nickel, and mercury)

exceeded CGs. The results of the initial groundwater monitoring event are also documented in the RACR.

#### **2.4. Cleanup Goals (CGs)**

The CGs established in the CAP Addendum for groundwater beneath the site are the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for groundwater which is not a current or potential drinking water resource (May 2013 ESLs, Table F-1b). The selection of these CGs were based on results of the Data Gap Investigation which reported total dissolved solids (TDS) concentrations in several groundwater samples above than the San Francisco Bay Region Basin Plan (RWQCB 2007) guidelines of 3,000 milligrams per liter (mg/L) for a potential drinking water resource. Analytical results from groundwater monitoring well samples have previous to this report indicated TDS concentrations ranging from 1,100 to 1,800 mg/L, therefore shallow groundwater beneath the site would qualify as a potential drinking water resource under the Basin Plan. However as this is a single result, post remediation groundwater monitoring results will continue to be compared to ESLs for Drinking Water (December 2013 ESLs, Table F-3).

The established groundwater CGs are the lowest of the screening values listed in ESLs Table F-1b, which are based on aquatic habitat goals for all site COCs with the exception of benzo(k)fluoranthene, which is based on gross contamination/ceiling value (odor, etc.). Although the site is located in relative close proximity to San Francisco Bay, the COCs which have impacted site groundwater (metals, TPHs, and PAHs) are not very mobile and easily adsorb to soil, therefore these COCs most likely are not migrating to the aquatic habitat of San Francisco Bay. Post remediation groundwater monitoring results have revealed relatively minor residual impacts, with concentrations of only some metals slightly exceeding CGs and/or drinking water ESLs, as discussed in Section 2.7.2 below. The impacts were generally lower at the site's western boundary (in monitoring well MW-3), indicating that groundwater impacts from the site would most likely not be migrating all the way to San Francisco Bay. It is therefore proposed that site CGs for groundwater be revised to be based



on ESLs for Drinking Water (December 2013 ESLs, Table F-3). Drinking Water ESLs are generally higher than the ESLs for aquatic habitat goals for most of the metals which have impacted site groundwater.

## **2.5. Monitoring Well Sampling**

On November 12, 2014, groundwater samples were collected from monitoring wells MW-1 through MW-3. The well caps were removed to allow the water level to equilibrate for approximately 20 minutes, at which time depth to groundwater was measured using a decontaminated water level meter accurate to 0.01 feet. Approximately three casing volumes of groundwater were purged using a peristaltic pump with dedicated tubing for each well prior to sample collection. Groundwater parameters, including pH, temperature, and electrical conductivity were measured during well purging and recorded on groundwater sampling field data sheets (Appendix A). Groundwater samples were collected in the appropriate containers using the peristaltic pump. The groundwater samples were not filtered or preserved during collection as the laboratory performed filtering and preservation of samples as necessary prior to analysis. The sample containers were labeled with the sample identification, project location, sampling date/time, and sampler's initials. The sample containers were stored in a cooler containing ice for transport to the analytical laboratory for analysis. Chain-of-custody documentation was completed and accompanied the groundwater samples to the laboratory.

### **2.5.1. Groundwater Sample Analysis**

Groundwater samples were submitted to Test America for analysis of TDS using EPA Method SM 2540C, Title 22 Metals using EPA Method 6010B/7470A, hexavalent chromium using EPA Method 7199, TPH<sub>ho</sub> using EPA Method 8015M with silica gel cleanup, and PAHs using EPA Method 8270-SIM.

## **2.6. Groundwater Depths, Elevations, Flow Direction, and Gradient**

The depth to groundwater was measured in site monitoring wells on November 12, 2014. Groundwater depth and elevation data is presented in Table 1 and on Figure 2. The depth to groundwater ranged from 6.54 to 6.85 feet below the top of well casings, or approximately

3.7 to 4.0 feet bgs, as the top of well casings are approximately 3 feet above the ground surface. Based on the surveyed well elevations, the groundwater elevation in the western portion of the site ranged from approximately 8.59 to 8.93 feet MSL. Based on the groundwater elevations, the groundwater flow direction was inferred to be towards the west with a gradient of approximately 0.02 feet per foot. The groundwater flow direction is expected to typically trend towards the west-southwest towards San Francisco Bay, however because of the site's proximity to San Francisco Bay, groundwater elevations and flow directions may be tidally influenced.

## **2.7. Groundwater Monitoring Analytical Results**

Analytical results for groundwater monitoring samples are summarized in Tables 2 and 3, and a copy of the analytical laboratory report is presented in Appendix B. Groundwater sample analytical results are compared to site CGs and Drinking Water ESLs. Groundwater sample results exceeding CGs or Drinking water ESLs are also presented on Figure 2. The following sections summarize the groundwater monitoring sample results.

### **2.7.1. TDS**

Analytical results for TDS are presented in Table 2. TDS was detected at concentrations of 1,100 mg/L in monitoring wells MW-1, 960 mg/L in MW-2, and 3,100 mg/L in MW-3. As discussed in Section 2.4 above, two of these concentrations are below the TDS limit, however, the TDS concentration in MW-3 was observed to be above the limit of 3,000 mg/L established for drinking water in the Basin Plan.

### **2.7.2. Metals**

Analytical results for metals are presented in Table 2. Groundwater monitoring results revealed concentrations of lead, molybdenum, and nickel which exceeded CGs, and concentrations of arsenic and molybdenum which exceeded Drinking Water ESLs. All other metals were either not detected, or were detected at concentrations below CGs and Drinking Water ESLs. Groundwater sample analytical results for metals which exceeded CGs or Drinking Water ESLs are discussed below.

#### **2.7.2.1. Arsenic**

Arsenic was not detected above the CG of 0.036 mg/L. Arsenic was detected at concentrations which exceed the Drinking Water ESL of 0.01 mg/L in samples MW-1 (0.015 mg/L) and MW-3 (0.011 mg/L), and was not detected in sample MW-2.

#### **2.7.2.2. Lead**

Lead was detected at a concentration which exceeds the CG of 0.0025 mg/L in samples MW-1 (0.0081 mg/L) and MW-2 (0.0055). Lead was not detected in sample MW-3. None of the three sample concentrations exceeded the Drinking Water ESL of 0.015 mg/L for lead.

#### **2.7.2.3. Molybdenum**

Molybdenum was detected at concentrations which exceed the CG of 0.24 mg/L and Drinking Water ESL of 0.078 mg/L in samples MW-1 (0.88 mg/L) and MW-2 (0.98 mg/L), and was not detected above either of these criteria in sample MW-3.

#### **2.7.2.4. Nickel**

Nickel was not detected above the Drinking Water ESL of 0.1 mg/L. Nickel was detected at concentrations which exceed the CG of 0.0082 mg/L in samples MW-1 (0.035 mg/L), MW-2 (0.024 mg/L), and MW-3 (0.025 mg/L).

### **2.7.3. TPHho**

Analytical results for TPHho are presented in Table 3. TPHho was detected in samples MW-1 and MW-2 at concentrations of 470 µg/L and 630 µg/L, which are below cleanup goal concentration of 640 µg/L but are above the drinking water ESL concentration of 100µg/L. TPHho was not detected above laboratory reporting limits in sample MW-3.

#### **2.7.4. PAHs**

Analytical results for PAHs are presented in Table 3. Groundwater monitoring results indicated that concentrations of naphthalene exceeding both the CGs (24 µg/L) and Drinking Water ESLs (6.1 µg/L) in the sample collected from MW-1 (30 µg/L); however, no other sample exceeded CGs or Drinking Water ESLs. Naphthalene was also re-reported at a minor concentration of 0.17 µg/L in sample MW-2. The following minor concentrations (below ESLs and CGs) of PAHs were reported in MW-1: acenaphthene (3.8 µg/L), acenaphthylene (0.11 µg/L), anthracene (0.32 µg/L), fluoranthene (0.14 µg/L), fluorine (1.8 µg/L), and phenanthrene (1.9 µg/L) (Table 3). No other concentrations of PAHs were detected in the groundwater monitoring samples.

### **3. CONCLUSIONS AND RECOMMENDATIONS**

Based on the findings of post remediation groundwater monitoring activities, residual impacts from TPHho and PAHs in groundwater do not pose a significant threat to human health or the environmental. Because metals do not biodegrade or readily naturally attenuate, the residual impacts from metals in groundwater may persist at levels which exceed CGs and/or Drinking Water ESLs for a significant period of time.

Impacted groundwater beneath the site is most likely not impacting the aquatic habitat of San Francisco Bay based on the relatively minor impacts detected in groundwater monitoring wells and the generally lower concentrations of dissolved metals detected in monitoring well MW-3, and the absence of detected volatile constituents in MW-3 which is closest to the site's western boundary and San Francisco Bay. This indicates that the COCs are not migrating off site towards the San Francisco Bay.

Based on the findings of previous site assessments and the results of site remediation and post remediation groundwater monitoring, Ninyo & Moore recommends the following:

Four quarters of groundwater monitoring have been completed at the site, which is generally enough time to evaluate trends in post-remediation groundwater COCs. The main site COCs, including PAHs (naphthalene), TPHho, and specific Title 22 Metals (arsenic, copper and lead) have

shown stability for the most part, with a slight increase in TPHho in MW-1 and MW-2 during this sampling event, and a slight increase in naphthalene in MW-1 to above both the CG and ESLs over the past two sampling events. However the naphthalene concentrations appear to have stabilized in MW-1, and all COCs in the furthest downgradient well, MW-3, are below detection limits with the exception of arsenic and nickel, which appear stable over the last four monitoring events. Therefore, this data indicates that the on-site groundwater plume is stable and not migrating off site toward the Bay. Based on this information, we recommend that groundwater monitoring at the site should be discontinued and ACEH should consider the site for case closure. Following completion of a public notice and comment period for the proposed case closure, monitoring wells MW-1 through MW-3 should be destroyed in accordance with state and local guidelines. Following the submittal of a report to ACEH documenting the monitoring well destruction activities, ACEH should provide a No Further Action letter for the site.

#### **4. LIMITATIONS**

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 other 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.

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.

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

## 5. REFERENCES

California Regional Water Quality Control Board, San Francisco Bay Region, 2007 Water Quality Control Plan, dated January 18.

Ninyo & Moore, 2013, Revised Data Gap Investigation Report and Corrective Action Plan, Western Forge and Flange, 540 Cleveland Avenue, Albany, California, dated May 15.

Ninyo & Moore, 2013, Corrective Action Plan Addendum, Western Forge and Flange, 540 Cleveland Avenue, Albany, California, dated July 22.

Ninyo & Moore, 2014, Removal Action Completion Report, 540 Cleveland Avenue, Albany, California, dated February 6.

SFRWQCB, 2013, Environmental Screening Levels, dated May.

SFRWQCB, 2013, Environmental Screening Levels, dated December.

**TABLE 1 - GROUNDWATER DEPTH AND ELEVATION DATA**

Monitoring Well ID	TOC Elevation (ft msl)	Ground Surface Elevation (ft msl)	Measurement Date	Depth to Groundwater (ft btoc)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft msl)
MW-1	15.76	12.9	12/03/13	7.62	4.8	8.14
			12/05/13	7.59	4.7	8.17
			03/24/14	5.25	2.4	10.51
			09/09/14	6.81	4.0	8.95
			11/12/14	6.85	4.0	8.91
MW-2	15.47	12.6	12/03/13	7.31	4.4	8.16
			12/05/13	7.28	4.4	8.19
			03/24/14	4.95	2.1	10.52
			09/09/14	6.50	3.6	8.97
			11/12/14	6.54	3.7	8.93
MW-3	15.17	12.3	12/03/13	5.47	2.6	9.70
			12/05/13	5.79	2.9	9.38
			03/24/14	4.75	1.9	10.42
			09/09/14	6.95	4.1	8.22
			11/12/14	6.58	3.7	8.59

**Notes:**

TOC = top of casing  
ft btoc= feet below top of casing  
ft msl = feet above mean sea level  
ft bgs = feet below ground surface

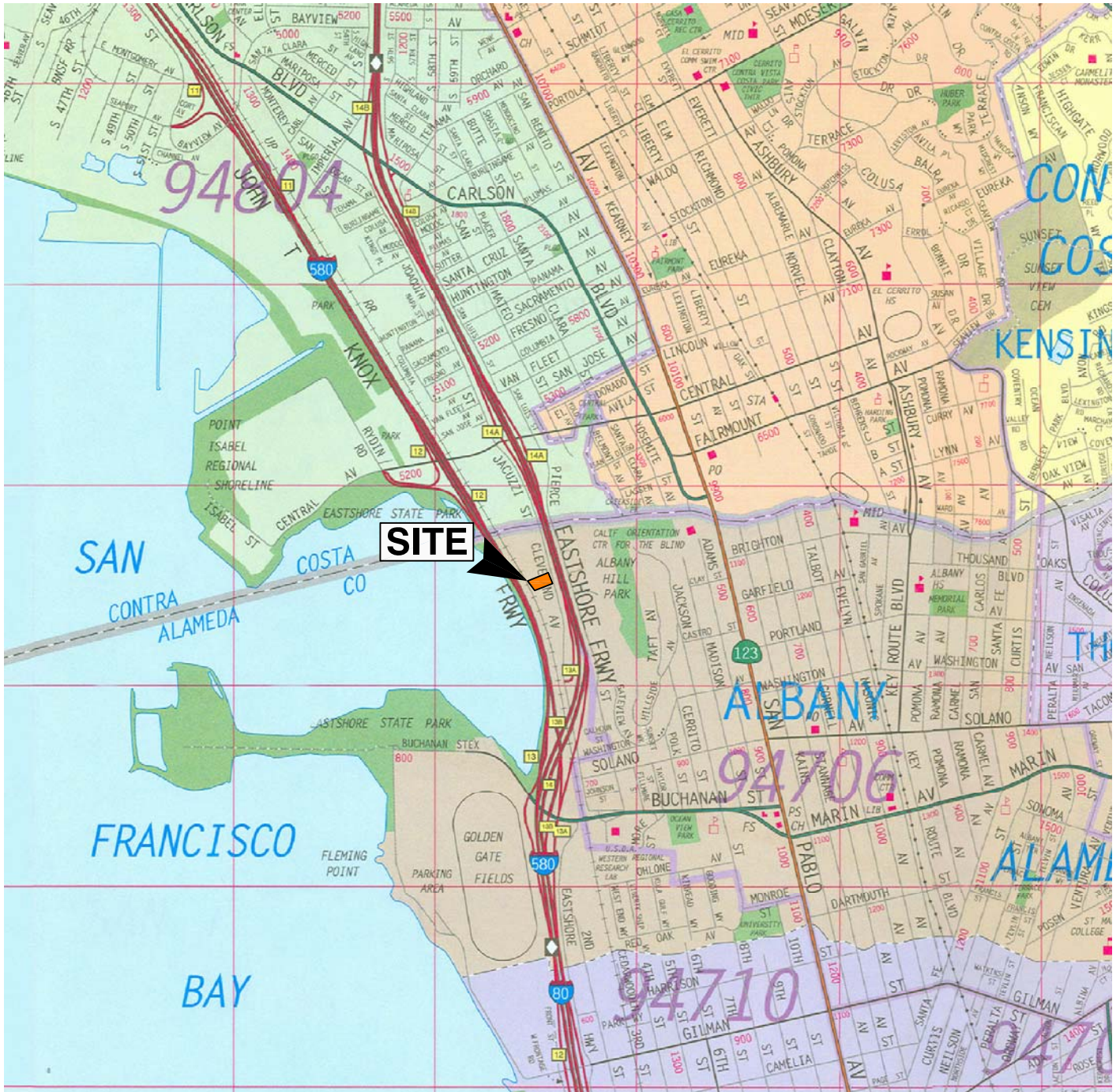


**TABLE 2 - ANALYTICAL RESULTS FOR METALS AND TOTAL DISSOLVED SOLIDS**

Sample ID	Date Collected	Antimony	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	Total Dissolved Solids
		Groundwater Sample Results (mg/L)																		
MW-1	12/05/13	<0.010	0.017	0.074	<0.0020	<0.0020	<0.010	<0.010*	<0.0020	<b>0.021</b>	<b>0.0094</b>	<b>0.99</b>	<b>0.033</b>	<0.020	<0.0050	<0.010	0.018	<0.020	<b>0.00022</b>	1,400
	03/24/14	<0.010	0.018	0.032	<0.0020	<0.0020	<0.010	<0.0005	<0.0020	<b>0.037</b>	<b>0.019</b>	<b>0.67</b>	<b>0.043</b>	<0.020	<0.0050	<0.010	<b>0.022</b>	<0.020	<0.00020	1,100
	09/09/14	<0.010	0.017	<0.0050	<0.0020	<0.0050	<0.010	<0.0005	<0.0050	<b>0.0079</b>	<b>0.019</b>	<b>0.86</b>	<b>0.039</b>	<b>0.031</b>	<0.0050	<0.010	<0.0050	<0.020	<0.00020	1,100
	11/12/14	<0.010	0.015	0.011	<0.0020	<0.0020	<0.010	<0.0005	<0.0020	<0.020	<b>0.0081</b>	<b>0.88</b>	<b>0.035</b>	<0.020	<0.0050	<0.010	<0.010	<0.020	<0.00020	1,100
MW-2	12/05/13	<0.010	0.011	0.11	<0.0020	<0.0020	<0.010	<0.010*	<b>0.0056</b>	<b>0.020</b>	<0.0050	<b>0.58</b>	<b>0.037</b>	<0.020	<0.0050	<0.010	0.012	0.047	<b>0.00027</b>	1,800
	03/24/14	<0.010	<0.010	0.036	<0.0020	<0.0020	<0.010	<0.0005	<0.0020	<0.020	<0.0050	<b>0.55</b>	<b>0.018</b>	<0.020	<0.0050	<0.010	0.015	<0.020	<0.00020	1,100
	09/09/14	<0.010	0.011	0.019	<0.0020	<0.0050	<0.010	<0.0005	<0.0050	<b>0.064</b>	<b>0.0099</b>	<b>0.88</b>	<b>0.025</b>	<0.010	<0.0050	<0.010	0.0054	<0.020	<0.00020	900
	11/12/14	<0.010	<0.010	0.021	<0.0020	<0.0020	<0.010	<0.0005	<0.0020	<0.020	<b>0.0055</b>	<b>0.98</b>	<b>0.024</b>	<0.020	<0.0050	<0.010	<0.010	<0.020	<0.00020	960
MW-3	12/05/13	<0.010	<0.010	0.15	<0.0020	<0.0020	<0.010	<0.010*	0.0028	<0.020	<b>0.0099</b>	<0.010	<b>0.030</b>	<0.020	<0.0050	<0.010	<0.010	0.047	<b>0.00021</b>	1,800
	03/24/14	<0.010	0.014	0.04	<0.0020	<0.0020	<0.010	<0.0005	0.0023	<0.020	<0.0050	<0.010	<b>0.019</b>	<0.020	<0.0050	<0.010	<0.010	<0.020	<0.00020	1,200
	09/09/14	<0.010	0.019	0.19	<0.0020	<0.0020	<0.010	<0.0005	<0.0050	<0.0050	<0.0050	0.014	<b>0.029</b>	<b>0.029</b>	<0.0050	<0.010	<0.010	<0.020	<0.00020	2,700
	11/12/14	<0.010	0.011	0.31	<0.0020	<0.0020	<0.010	<0.0005	0.0026	<0.020	<0.0050	0.018	<b>0.025</b>	<0.020	<0.0050	<0.010	<0.010	<0.020	<0.00020	3,100
<b>Cleanup Goals (mg/L)</b>		0.030	0.036	1	0.00053	0.00025	0.18	0.011	0.003	0.0031	0.0025	0.24	0.0082	0.005	0.00019	0.004	0.019	0.081	0.000025	NA
<b>Drinking Water ESLs (mg/L)</b>		0.006	0.01	1	0.004	0.005	0.05	0.00002	0.0047	1.0	0.015	0.078	0.1	0.05	0.1	0.002	0.050	5	0.002	NA
<b>Notes</b>																				
Metals analyzed by EPA Methods 6010B, 7470A (mercury), and 7199 (hexavalent chromium)																				
* indicates samples analyzed for hexavalent chromium by EPA Method 7196A																				
Total Dissolved Solids analyzed by EPA Method SM 2540C																				
ESLs = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels																				
Cleanup Goals = ESLs Table F-1b, Groundwater is not a current or potential drinking water resource, dated May 2013																				
Drinking Water ESLs = ESLs Table F-3, dated December 2013																				
<x = less than laboratory reporting limit of x																				
mg/L= milligrams per liter																				
NA = not applicable																				
<b>Bold</b> indicates concentration equal to or exceeding Cleanup Goal																				
Grey Shading indicates concentration exceeding Drinking Water ESL																				

**TABLE 3 - ANALYTICAL RESULTS FOR TPHho and PAHs**

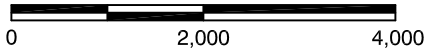
Sample ID	Date Collected	TPHho	PAHs															
			Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
Analytical Results (µg/L)																		
MW-1	12/05/13	230	0.28	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.99	<0.10	<0.10
	03/24/14	<100	0.8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.26	<0.10	5.2	0.24	<0.10
	09/09/14	<300	2.20	<0.09	0.3	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	0.7	<0.09	<b>38</b>	0.7	<0.09
	11/12/14	470	3.8	0.11	0.32	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.14	1.8	<0.11	<b>30</b>	1.9
MW-2	12/05/13	<100	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	03/24/14	<100	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	<0.10
	09/09/14	<300	0.1	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	0.1	<0.09	0.3	0.2	<0.09
	11/12/14	630	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.17	<0.11	<0.11
MW-3	12/05/13	<100	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	03/24/14	<100	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	09/09/14	<300	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	11/12/14	<110	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
<b>Cleanup Goals (µg/L)</b>		640	23	30	0.73	0.027	0.014	0.056	0.10	0.40	0.35	0.25	8	3.9	0.056	24	4.6	2
<b>Drinking Water ESLs (µg/L)</b>		100	20	2,000	22	0.056	0.2	0.056	0.13	0.056	0.56	0.016	130	630	0.056	6.1	410	68
<b>Notes</b>																		
PAHs = polycyclic aromatic hydrocarbons analyzed by EPA Method 8270 SIM																		
TPHho = total petroleum hydrocarbons as hydraulic oil analyzed by EPA Method 8015B																		
ESLs = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels																		
Cleanup Goals = ESLs Table F-1b, Groundwater is not a current or potential drinking water resource, dated May 2013																		
Drinking Water ESLs = ESLs Table F-3, dated December 2013																		
<b>Bold</b> indicates concentration equal to or exceeding Cleanup Goal																		
<b>Grey Shading</b> indicates concentration exceed Drinking Water ESLs																		
<x = not detected, concentration is less than laboratory reporting limit of x																		
µg/L = micrograms per Liter																		



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**

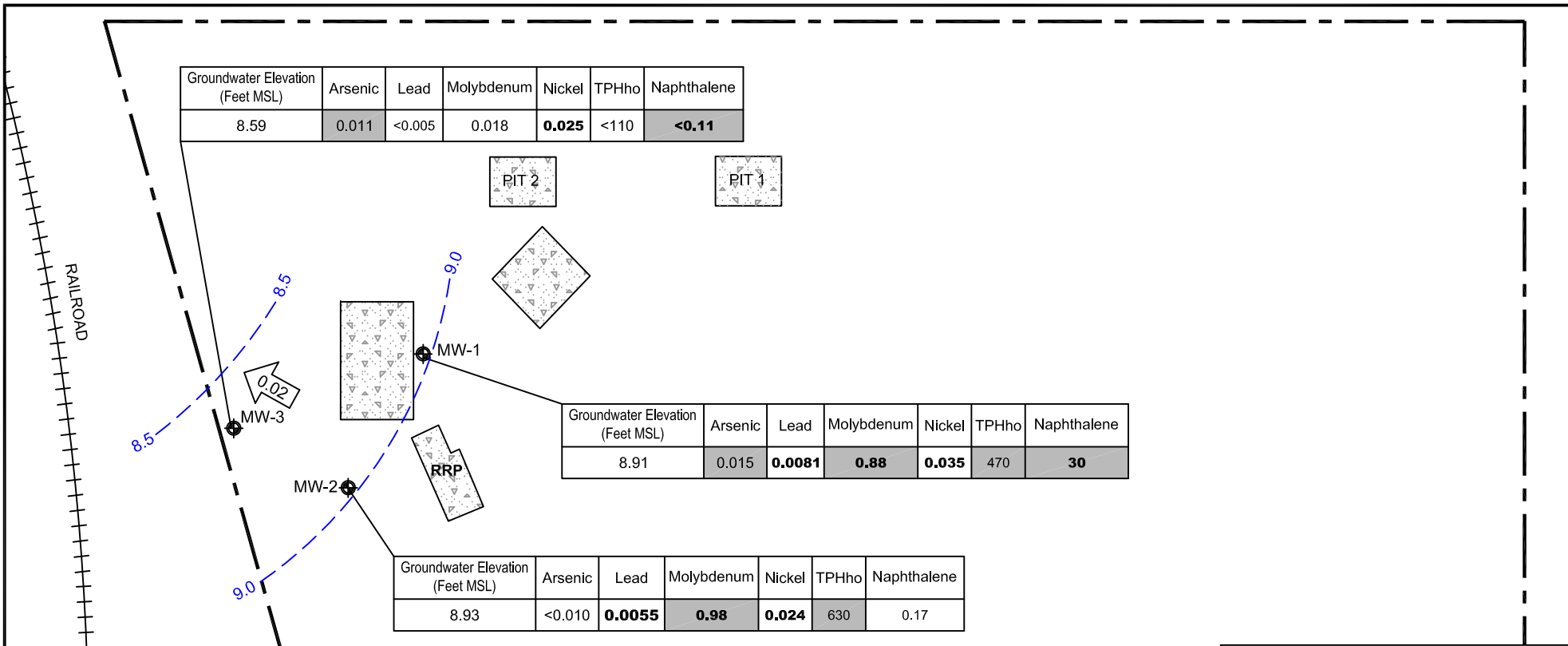
**SITE LOCATION**

FIGURE

PROJECT NO.	DATE
401823001	12/14

WESTERN FORGE & FLANGE  
540 CLEVELAND AVENUE  
ALBANY, CALIFORNIA

**1**



**LEGEND**

- SUBSURFACE CONCRETE FOUNDATION LEFT IN PLACE
- MW-3 MONITORING WELL
- RRP RING ROLLING PIT
- GROUNDWATER FLOW DIRECTION AND GRADIENT IN FEET PER FOOT
- 9.0 GROUNDWATER EQUIPOTENTIAL LINE ELEVATION IN FEET MSL
- TPHho TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL
- MSL ABOVE MEAN SEAL LEVEL
- SHADING INDICATES CONCENTRATION EXCEEDING DRINKING WATER ESL
- ESLs ENVIRONMENTAL SCREENING LEVELS
- < INDICATES NOT DETECTED, BELOW LABORATORY REPORTING LIMIT
- BOLD** INDICATES CONCENTRATIONS EQUAL TO OR EXCEEDING CLEANUP GOALS
- mg/L MILLIGRAMS PER LITER

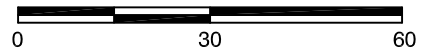
ANALYTICAL RESULTS, CLEANUP GOALS, AND ESLs IN MICROGRAMS PER LITER (ug/L)

	Arsenic	Lead	Molybdenum	Nickel	TPHho	Naphthalene
	mg/L				ug/L	
Cleanup Goals	0.036	0.0025	0.24	0.0082	640	24
Drinking Water ESLs	0.01	0.015	0.078	0.1	100	6.1

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>GROUNDWATER GRADIENT AND ANALYTICAL RESULTS FOR CONSTITUENTS EXCEEDING CLEANUP GOALS OR DRINKING WATER ESLs - NOVEMBER 12, 2014</b>	<b>FIGURE 2</b>
PROJECT NO.	DATE	WESTERN FORGE & FLANGE 540 CLEVELAND AVENUE ALBANY, CALIFORNIA	
401823001	12/14		

401823001-F1G2.dwg, Dec 04, 2014, 2:01pm, nguyenv

**APPENDIX A**  
**FIELD DATA SHEETS**









**APPENDIX B**

**LABORATORY ANALYTICAL REPORT**

# 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: 720-61194-1

Client Project/Site: Western Forge & Flange

Revision: 1

For:

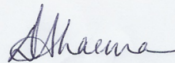
Ninyo & Moore

1956 Webster Street

Suite 400

Oakland, California 94612

Attn: Jason Grant



Authorized for release by:

11/21/2014 4:57:52 PM

Dimple Sharma, Senior Project Manager

(925)484-1919

[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: 720-61194-1

### 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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

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

TestAmerica Job ID: 720-61194-1

**Job ID: 720-61194-1**

**Laboratory: TestAmerica Pleasanton**

## Narrative

**Job Narrative**  
**720-61194-1**

### Comments

No additional comments.

### Receipt

The samples were received on 11/12/2014 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 0.1° C and 0.4° C.

### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

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

TestAmerica Job ID: 720-61194-1

## Client Sample ID: MW-1

## Lab Sample ID: 720-61194-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	30		0.54		ug/L	5		8270C SIM	Total/NA
Acenaphthene	3.8		0.11		ug/L	1		8270C SIM	Total/NA
Acenaphthylene	0.11		0.11		ug/L	1		8270C SIM	Total/NA
Fluorene	1.8		0.11		ug/L	1		8270C SIM	Total/NA
Phenanthrene	1.9		0.11		ug/L	1		8270C SIM	Total/NA
Anthracene	0.32		0.11		ug/L	1		8270C SIM	Total/NA
Fluoranthene	0.14		0.11		ug/L	1		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	470		100		ug/L	1		8015B	Total/NA
Arsenic	0.015		0.010		mg/L	1		6010B	Dissolved
Barium	0.011		0.0050		mg/L	1		6010B	Dissolved
Lead	0.0081		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.88		0.010		mg/L	1		6010B	Dissolved
Nickel	0.035		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	1100		10		mg/L	1		SM 2540C	Total/NA

## Client Sample ID: MW-2

## Lab Sample ID: 720-61194-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.17		0.11		ug/L	1		8270C SIM	Total/NA
TPH-Hydraulic Oil Range (C19-C36)	630		100		ug/L	1		8015B	Total/NA
Barium	0.021		0.0050		mg/L	1		6010B	Dissolved
Lead	0.0055		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.98		0.010		mg/L	1		6010B	Dissolved
Nickel	0.024		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	960		10		mg/L	1		SM 2540C	Total/NA

## Client Sample ID: MW-3

## Lab Sample ID: 720-61194-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.011		0.010		mg/L	1		6010B	Dissolved
Barium	0.31		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0026		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.018		0.010		mg/L	1		6010B	Dissolved
Nickel	0.025		0.010		mg/L	1		6010B	Dissolved
Total Dissolved Solids	3100		13		mg/L	1		SM 2540C	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: 720-61194-1

**Client Sample ID: MW-1**

**Lab Sample ID: 720-61194-1**

Date Collected: 11/12/14 12:00

Matrix: Water

Date Received: 11/12/14 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	30		0.54		ug/L		11/17/14 09:44	11/19/14 17:16	5
Acenaphthene	3.8		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Acenaphthylene	0.11		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Fluorene	1.8		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Phenanthrene	1.9		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Anthracene	0.32		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Benzo[a]anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Chrysene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Benzo[a]pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Benzo[b]fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Benzo[k]fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Benzo[g,h,i]perylene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Indeno[1,2,3-cd]pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Fluoranthene	0.14		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
Dibenz(a,h)anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:07	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	56		29 - 120				11/17/14 09:44	11/19/14 16:07	1
2-Fluorobiphenyl	50		29 - 120				11/17/14 09:44	11/19/14 17:16	5
Terphenyl-d14	78		45 - 120				11/17/14 09:44	11/19/14 16:07	1
Terphenyl-d14	71		45 - 120				11/17/14 09:44	11/19/14 17:16	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	470		100		ug/L		11/17/14 14:54	11/20/14 14:31	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	78		23 - 156				11/17/14 14:54	11/20/14 14:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Arsenic	0.015		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Barium	0.011		0.0050		mg/L		11/18/14 09:02	11/18/14 20:01	1
Beryllium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:01	1
Cadmium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:01	1
Chromium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Cobalt	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:01	1
Copper	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:01	1
Lead	0.0081		0.0050		mg/L		11/18/14 09:02	11/18/14 20:01	1
Molybdenum	0.88		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Nickel	0.035		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Selenium	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:01	1
Silver	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 20:01	1
Thallium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Vanadium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:01	1
Zinc	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:01	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-61194-1

**Client Sample ID: MW-1**

**Lab Sample ID: 720-61194-1**

**Date Collected: 11/12/14 12:00**

**Matrix: Water**

**Date Received: 11/12/14 17:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/19/14 07:48	11/19/14 13:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>1100</b>		10		mg/L			11/16/14 22:38	1

**General Chemistry - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			11/12/14 20:51	1





# Client Sample Results

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

TestAmerica Job ID: 720-61194-1

**Client Sample ID: MW-2**  
**Date Collected: 11/12/14 13:05**  
**Date Received: 11/12/14 17:00**

**Lab Sample ID: 720-61194-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Naphthalene</b>	<b>0.17</b>		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Acenaphthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Acenaphthylene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Fluorene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Phenanthrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Benzo[a]anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Chrysene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Benzo[a]pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Benzo[b]fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Benzo[k]fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Benzo[g,h,i]perylene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Indeno[1,2,3-cd]pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
Dibenz(a,h)anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	61		29 - 120				11/17/14 09:44	11/19/14 16:30	1
Terphenyl-d14	69		45 - 120				11/17/14 09:44	11/19/14 16:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH-Hydraulic Oil Range (C19-C36)</b>	<b>630</b>		100		ug/L		11/17/14 14:54	11/20/14 14:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	73		23 - 156				11/17/14 14:54	11/20/14 14:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
Arsenic	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
<b>Barium</b>	<b>0.021</b>		0.0050		mg/L		11/18/14 09:02	11/18/14 20:07	1
Beryllium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:07	1
Cadmium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:07	1
Chromium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
Cobalt	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:07	1
Copper	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:07	1
<b>Lead</b>	<b>0.0055</b>		0.0050		mg/L		11/18/14 09:02	11/18/14 20:07	1
<b>Molybdenum</b>	<b>0.98</b>		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
<b>Nickel</b>	<b>0.024</b>		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
Selenium	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:07	1
Silver	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 20:07	1
Thallium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
Vanadium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:07	1
Zinc	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/19/14 07:48	11/19/14 13:25	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-61194-1

**Client Sample ID: MW-2**

**Lab Sample ID: 720-61194-2**

Date Collected: 11/12/14 13:05

Matrix: Water

Date Received: 11/12/14 17:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	960		10		mg/L			11/16/14 22:40	1

## General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			11/12/14 21:02	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: 720-61194-1

**Client Sample ID: MW-3**  
**Date Collected: 11/12/14 14:01**  
**Date Received: 11/12/14 17:00**

**Lab Sample ID: 720-61194-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Acenaphthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Acenaphthylene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Fluorene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Phenanthrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Benzo[a]anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Chrysene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Benzo[a]pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Benzo[b]fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Benzo[k]fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Benzo[g,h,i]perylene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Indeno[1,2,3-cd]pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Fluoranthene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Pyrene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Dibenz(a,h)anthracene	ND		0.11		ug/L		11/17/14 09:44	11/19/14 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		29 - 120				11/17/14 09:44	11/19/14 16:53	1
Terphenyl-d14	73		45 - 120				11/17/14 09:44	11/19/14 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		110		ug/L		11/17/14 14:54	11/20/14 15:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	74		23 - 156				11/17/14 14:54	11/20/14 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
<b>Arsenic</b>	<b>0.011</b>		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
<b>Barium</b>	<b>0.31</b>		0.0050		mg/L		11/18/14 09:02	11/18/14 20:12	1
Beryllium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:12	1
Cadmium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 20:12	1
Chromium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
<b>Cobalt</b>	<b>0.0026</b>		0.0020		mg/L		11/18/14 09:02	11/18/14 20:12	1
Copper	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:12	1
Lead	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 20:12	1
<b>Molybdenum</b>	<b>0.018</b>		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
<b>Nickel</b>	<b>0.025</b>		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
Selenium	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:12	1
Silver	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 20:12	1
Thallium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
Vanadium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 20:12	1
Zinc	ND		0.020		mg/L		11/18/14 09:02	11/18/14 20:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/19/14 07:48	11/19/14 13:27	1

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-61194-1

**Client Sample ID: MW-3**

**Lab Sample ID: 720-61194-3**

**Date Collected: 11/12/14 14:01**

**Matrix: Water**

**Date Received: 11/12/14 17:00**

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3100		13		mg/L			11/16/14 22:43	1

**General Chemistry - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50		ug/L			11/12/14 21:14	1



# QC Sample Results

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

TestAmerica Job ID: 720-61194-1

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

**Lab Sample ID: MB 720-171007/1-A**

**Matrix: Water**

**Analysis Batch: 171099**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 171007**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Acenaphthene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Acenaphthylene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Fluorene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Phenanthrene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Anthracene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Benzo[a]anthracene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Chrysene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Benzo[a]pyrene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Benzo[b]fluoranthene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Benzo[k]fluoranthene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Fluoranthene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Pyrene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		11/17/14 09:44	11/18/14 12:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		29 - 120	11/17/14 09:44	11/18/14 12:07	1
Terphenyl-d14	90		45 - 120	11/17/14 09:44	11/18/14 12:07	1

**Lab Sample ID: LCS 720-171007/2-A**

**Matrix: Water**

**Analysis Batch: 171099**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 171007**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	10.0	5.86		ug/L		59	19 - 120
Acenaphthene	10.0	6.25		ug/L		63	24 - 120
Acenaphthylene	10.0	6.78		ug/L		68	24 - 120
Fluorene	10.0	6.70		ug/L		67	27 - 120
Phenanthrene	10.0	6.26		ug/L		63	31 - 120
Anthracene	10.0	7.62		ug/L		76	44 - 120
Benzo[a]anthracene	10.0	7.52		ug/L		75	48 - 120
Chrysene	10.0	7.53		ug/L		75	47 - 120
Benzo[a]pyrene	10.0	8.36		ug/L		84	43 - 120
Benzo[b]fluoranthene	10.0	7.73		ug/L		77	42 - 120
Benzo[k]fluoranthene	10.0	8.95		ug/L		90	42 - 120
Benzo[g,h,i]perylene	10.0	8.38		ug/L		84	35 - 120
Indeno[1,2,3-cd]pyrene	10.0	8.59		ug/L		86	36 - 120
Fluoranthene	10.0	7.76		ug/L		78	43 - 120
Pyrene	10.0	7.85		ug/L		78	47 - 120
Dibenz(a,h)anthracene	10.0	8.53		ug/L		85	33 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	72		29 - 120
Terphenyl-d14	91		45 - 120

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# QC Sample Results

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

TestAmerica Job ID: 720-61194-1

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

Lab Sample ID: LCSD 720-171007/3-A

Matrix: Water

Analysis Batch: 171099

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 171007

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	10.0	5.18		ug/L		52	19 - 120	12	35
Acenaphthene	10.0	5.59		ug/L		56	24 - 120	11	35
Acenaphthylene	10.0	6.04		ug/L		60	24 - 120	12	35
Fluorene	10.0	6.14		ug/L		61	27 - 120	9	35
Phenanthrene	10.0	5.79		ug/L		58	31 - 120	8	35
Anthracene	10.0	7.15		ug/L		71	44 - 120	6	35
Benzo[a]anthracene	10.0	7.13		ug/L		71	48 - 120	5	35
Chrysene	10.0	7.08		ug/L		71	47 - 120	6	35
Benzo[a]pyrene	10.0	7.43		ug/L		74	43 - 120	12	35
Benzo[b]fluoranthene	10.0	7.09		ug/L		71	42 - 120	9	35
Benzo[k]fluoranthene	10.0	7.70		ug/L		77	42 - 120	15	35
Benzo[g,h,i]perylene	10.0	6.79		ug/L		68	35 - 120	21	35
Indeno[1,2,3-cd]pyrene	10.0	7.03		ug/L		70	36 - 120	20	35
Fluoranthene	10.0	7.45		ug/L		75	43 - 120	4	35
Pyrene	10.0	7.42		ug/L		74	47 - 120	6	35
Dibenz(a,h)anthracene	10.0	6.88		ug/L		69	33 - 120	21	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	62		29 - 120
Terphenyl-d14	83		45 - 120

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

Lab Sample ID: MB 720-171036/1-A

Matrix: Water

Analysis Batch: 171287

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 171036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH-Hydraulic Oil Range (C19-C36)	ND		99		ug/L		11/17/14 14:54	11/20/14 14:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	88		23 - 156	11/17/14 14:54	11/20/14 14:06	1

Lab Sample ID: LCS 720-171036/2-A

Matrix: Water

Analysis Batch: 170987

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 171036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1910		ug/L		76	34 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	97		23 - 156

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# QC Sample Results

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

TestAmerica Job ID: 720-61194-1

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

**Lab Sample ID: LCSD 720-171036/3-A**

**Matrix: Water**

**Analysis Batch: 170987**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 171036**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	1620		ug/L		65	34 - 115	16	35
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>						<b>Limits</b>
<i>p-Terphenyl</i>		92							23 - 156

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 720-171102/2-A**

**Matrix: Water**

**Analysis Batch: 171190**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 171102**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.890		mg/L		89	80 - 120
Arsenic	1.00	0.938		mg/L		94	80 - 120
Barium	1.00	0.974		mg/L		97	80 - 120
Beryllium	1.00	0.933		mg/L		93	80 - 120
Cadmium	1.00	1.02		mg/L		102	80 - 120
Chromium	1.00	0.999		mg/L		100	80 - 120
Cobalt	1.00	0.980		mg/L		98	80 - 120
Copper	1.00	0.994		mg/L		99	80 - 120
Lead	1.00	1.01		mg/L		101	80 - 120
Molybdenum	1.00	0.984		mg/L		98	80 - 120
Nickel	1.00	0.984		mg/L		98	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Silver	0.500	0.496		mg/L		99	80 - 120
Thallium	1.00	1.02		mg/L		102	80 - 120
Vanadium	1.00	0.926		mg/L		93	80 - 120
Zinc	1.00	0.905		mg/L		90	80 - 120

**Lab Sample ID: LCSD 720-171102/3-A**

**Matrix: Water**

**Analysis Batch: 171190**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total Recoverable**

**Prep Batch: 171102**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	0.923		mg/L		92	80 - 120	4	20
Arsenic	1.00	0.941		mg/L		94	80 - 120	0	20
Barium	1.00	0.978		mg/L		98	80 - 120	0	20
Beryllium	1.00	0.938		mg/L		94	80 - 120	0	20
Cadmium	1.00	1.01		mg/L		101	80 - 120	0	20
Chromium	1.00	1.00		mg/L		100	80 - 120	0	20
Cobalt	1.00	0.978		mg/L		98	80 - 120	0	20
Copper	1.00	0.990		mg/L		99	80 - 120	0	20
Lead	1.00	1.01		mg/L		101	80 - 120	0	20
Molybdenum	1.00	0.997		mg/L		100	80 - 120	1	20
Nickel	1.00	0.983		mg/L		98	80 - 120	0	20
Selenium	1.00	1.01		mg/L		101	80 - 120	0	20
Silver	0.500	0.494		mg/L		99	80 - 120	0	20

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# QC Sample Results

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

TestAmerica Job ID: 720-61194-1

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

Lab Sample ID: LCSD 720-171102/3-A  
 Matrix: Water  
 Analysis Batch: 171190

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total Recoverable  
 Prep Batch: 171102

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	1.00	1.02		mg/L		102	80 - 120	0	20
Vanadium	1.00	0.929		mg/L		93	80 - 120	0	20
Zinc	1.00	0.901		mg/L		90	80 - 120	0	20

Lab Sample ID: MB 720-170874/1-B  
 Matrix: Water  
 Analysis Batch: 171190

Client Sample ID: Method Blank  
 Prep Type: Dissolved  
 Prep Batch: 171102

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Arsenic	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Barium	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 19:56	1
Beryllium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 19:56	1
Cadmium	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 19:56	1
Chromium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Cobalt	ND		0.0020		mg/L		11/18/14 09:02	11/18/14 19:56	1
Copper	ND		0.020		mg/L		11/18/14 09:02	11/18/14 19:56	1
Lead	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 19:56	1
Molybdenum	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Nickel	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Selenium	ND		0.020		mg/L		11/18/14 09:02	11/18/14 19:56	1
Silver	ND		0.0050		mg/L		11/18/14 09:02	11/18/14 19:56	1
Thallium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Vanadium	ND		0.010		mg/L		11/18/14 09:02	11/18/14 19:56	1
Zinc	ND		0.020		mg/L		11/18/14 09:02	11/18/14 19:56	1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-171193/1-A  
 Matrix: Water  
 Analysis Batch: 171234

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 171193

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/19/14 07:48	11/19/14 13:09	1

Lab Sample ID: LCS 720-171193/2-A  
 Matrix: Water  
 Analysis Batch: 171234

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 171193

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.00968		mg/L		97	85 - 115

Lab Sample ID: LCSD 720-171193/3-A  
 Matrix: Water  
 Analysis Batch: 171234

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 171193

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.00954		mg/L		95	85 - 115	1	20

TestAmerica Pleasanton



# QC Sample Results

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

TestAmerica Job ID: 720-61194-1

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

**Lab Sample ID: MB 720-170874/1-C**  
**Matrix: Water**  
**Analysis Batch: 171234**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 171193**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		11/19/14 07:48	11/19/14 13:16	1

**Lab Sample ID: 720-61194-1 MS**  
**Matrix: Water**  
**Analysis Batch: 171234**

**Client Sample ID: MW-1**  
**Prep Type: Dissolved**  
**Prep Batch: 171193**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.0100	0.00902		mg/L		90	70 - 130

**Lab Sample ID: 720-61194-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 171234**

**Client Sample ID: MW-1**  
**Prep Type: Dissolved**  
**Prep Batch: 171193**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.0100	0.00928		mg/L		93	70 - 130	3	20

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

**Lab Sample ID: MB 720-171239/1-A**  
**Matrix: Water**  
**Analysis Batch: 170768**

**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			11/12/14 18:56	1

**Lab Sample ID: LCS 720-171239/2-A**  
**Matrix: Water**  
**Analysis Batch: 170768**

**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	2.00		ug/L		100	90 - 110

**Lab Sample ID: 720-61194-3 MS**  
**Matrix: Water**  
**Analysis Batch: 170768**

**Client Sample ID: MW-3**  
**Prep Type: Dissolved**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND		2.00	1.94		ug/L		97	80 - 120

**Lab Sample ID: 720-61194-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 170768**

**Client Sample ID: MW-3**  
**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	1.93		ug/L		96	80 - 120	1	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-61194-1

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

Lab Sample ID: MB 500-264453/1  
 Matrix: Water  
 Analysis Batch: 264453

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			11/16/14 21:53	1

Lab Sample ID: LCS 500-264453/2  
 Matrix: Water  
 Analysis Batch: 264453

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	292		mg/L		117	80 - 120



# QC Association Summary

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

TestAmerica Job ID: 720-61194-1

## GC/MS Semi VOA

### Prep Batch: 171007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Total/NA	Water	3510C	
720-61194-2	MW-2	Total/NA	Water	3510C	
720-61194-3	MW-3	Total/NA	Water	3510C	
LCS 720-171007/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-171007/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-171007/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 171099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-171007/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	171007
LCSD 720-171007/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	171007
MB 720-171007/1-A	Method Blank	Total/NA	Water	8270C SIM	171007

### Analysis Batch: 171231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Total/NA	Water	8270C SIM	171007
720-61194-1	MW-1	Total/NA	Water	8270C SIM	171007
720-61194-2	MW-2	Total/NA	Water	8270C SIM	171007
720-61194-3	MW-3	Total/NA	Water	8270C SIM	171007

## GC Semi VOA

### Analysis Batch: 170987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-171036/2-A	Lab Control Sample	Total/NA	Water	8015B	171036
LCSD 720-171036/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	171036

### Prep Batch: 171036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Total/NA	Water	3510C	
720-61194-2	MW-2	Total/NA	Water	3510C	
720-61194-3	MW-3	Total/NA	Water	3510C	
LCS 720-171036/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-171036/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-171036/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 171287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Total/NA	Water	8015B	171036
720-61194-2	MW-2	Total/NA	Water	8015B	171036
720-61194-3	MW-3	Total/NA	Water	8015B	171036
MB 720-171036/1-A	Method Blank	Total/NA	Water	8015B	171036

## Metals

### Filtration Batch: 170874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	FILTRATION	
720-61194-1 MS	MW-1	Dissolved	Water	FILTRATION	
720-61194-1 MSD	MW-1	Dissolved	Water	FILTRATION	

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-61194-1

## Metals (Continued)

### Filtration Batch: 170874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-2	MW-2	Dissolved	Water	FILTRATION	
720-61194-3	MW-3	Dissolved	Water	FILTRATION	
MB 720-170874/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 720-170874/1-C	Method Blank	Dissolved	Water	FILTRATION	

### Prep Batch: 171102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	3005A	170874
720-61194-2	MW-2	Dissolved	Water	3005A	170874
720-61194-3	MW-3	Dissolved	Water	3005A	170874
LCS 720-171102/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-171102/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-170874/1-B	Method Blank	Dissolved	Water	3005A	170874

### Analysis Batch: 171190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	6010B	171102
720-61194-2	MW-2	Dissolved	Water	6010B	171102
720-61194-3	MW-3	Dissolved	Water	6010B	171102
LCS 720-171102/2-A	Lab Control Sample	Total Recoverable	Water	6010B	171102
LCSD 720-171102/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	171102
MB 720-170874/1-B	Method Blank	Dissolved	Water	6010B	171102

### Prep Batch: 171193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	7470A	170874
720-61194-1 MS	MW-1	Dissolved	Water	7470A	170874
720-61194-1 MSD	MW-1	Dissolved	Water	7470A	170874
720-61194-2	MW-2	Dissolved	Water	7470A	170874
720-61194-3	MW-3	Dissolved	Water	7470A	170874
LCS 720-171193/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-171193/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-170874/1-C	Method Blank	Dissolved	Water	7470A	170874
MB 720-171193/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 171234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	7470A	171193
720-61194-1 MS	MW-1	Dissolved	Water	7470A	171193
720-61194-1 MSD	MW-1	Dissolved	Water	7470A	171193
720-61194-2	MW-2	Dissolved	Water	7470A	171193
720-61194-3	MW-3	Dissolved	Water	7470A	171193
LCS 720-171193/2-A	Lab Control Sample	Total/NA	Water	7470A	171193
LCSD 720-171193/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	171193
MB 720-170874/1-C	Method Blank	Dissolved	Water	7470A	171193
MB 720-171193/1-A	Method Blank	Total/NA	Water	7470A	171193

# QC Association Summary

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

TestAmerica Job ID: 720-61194-1

## General Chemistry

### Analysis Batch: 170768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	7199	171239
720-61194-2	MW-2	Dissolved	Water	7199	171239
720-61194-3	MW-3	Dissolved	Water	7199	171239
720-61194-3 MS	MW-3	Dissolved	Water	7199	171239
720-61194-3 MSD	MW-3	Dissolved	Water	7199	171239
LCS 720-171239/2-A	Lab Control Sample	Dissolved	Water	7199	171239
MB 720-171239/1-A	Method Blank	Dissolved	Water	7199	171239

### Filtration Batch: 171239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Dissolved	Water	FILTRATION	
720-61194-2	MW-2	Dissolved	Water	FILTRATION	
720-61194-3	MW-3	Dissolved	Water	FILTRATION	
720-61194-3 MS	MW-3	Dissolved	Water	FILTRATION	
720-61194-3 MSD	MW-3	Dissolved	Water	FILTRATION	
LCS 720-171239/2-A	Lab Control Sample	Dissolved	Water	FILTRATION	
MB 720-171239/1-A	Method Blank	Dissolved	Water	FILTRATION	

### Analysis Batch: 264453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61194-1	MW-1	Total/NA	Water	SM 2540C	
720-61194-2	MW-2	Total/NA	Water	SM 2540C	
720-61194-3	MW-3	Total/NA	Water	SM 2540C	
LCS 500-264453/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-264453/1	Method Blank	Total/NA	Water	SM 2540C	

# Lab Chronicle

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

TestAmerica Job ID: 720-61194-1

## Client Sample ID: MW-1

Date Collected: 11/12/14 12:00

Date Received: 11/12/14 17:00

## Lab Sample ID: 720-61194-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			171007	11/17/14 09:44	NDU	TAL PLS
Total/NA	Analysis	8270C SIM		1	171231	11/19/14 16:07	MQL	TAL PLS
Total/NA	Prep	3510C			171007	11/17/14 09:44	NDU	TAL PLS
Total/NA	Analysis	8270C SIM		5	171231	11/19/14 17:16	MQL	TAL PLS
Total/NA	Prep	3510C			171036	11/17/14 14:54	DFR	TAL PLS
Total/NA	Analysis	8015B		1	171287	11/20/14 14:31	JXL	TAL PLS
Dissolved	Filtration	FILTRATION			170874	11/13/14 16:31	ASB	TAL PLS
Dissolved	Prep	3005A			171102	11/18/14 09:02	JCR	TAL PLS
Dissolved	Analysis	6010B		1	171190	11/18/14 20:01	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			170874	11/13/14 16:31	ASB	TAL PLS
Dissolved	Prep	7470A			171193	11/19/14 07:48	JCR	TAL PLS
Dissolved	Analysis	7470A		1	171234	11/19/14 13:23	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			171239	11/12/14 18:56	EYT	TAL PLS
Dissolved	Analysis	7199		1	170768	11/12/14 20:51	EYT	TAL PLS
Total/NA	Analysis	SM 2540C		1	264453	11/16/14 22:38	CLB	TAL CHI

## Client Sample ID: MW-2

Date Collected: 11/12/14 13:05

Date Received: 11/12/14 17:00

## Lab Sample ID: 720-61194-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			171007	11/17/14 09:44	NDU	TAL PLS
Total/NA	Analysis	8270C SIM		1	171231	11/19/14 16:30	MQL	TAL PLS
Total/NA	Prep	3510C			171036	11/17/14 14:54	DFR	TAL PLS
Total/NA	Analysis	8015B		1	171287	11/20/14 14:56	JXL	TAL PLS
Dissolved	Filtration	FILTRATION			170874	11/13/14 16:31	ASB	TAL PLS
Dissolved	Prep	3005A			171102	11/18/14 09:02	JCR	TAL PLS
Dissolved	Analysis	6010B		1	171190	11/18/14 20:07	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			170874	11/13/14 16:31	ASB	TAL PLS
Dissolved	Prep	7470A			171193	11/19/14 07:48	JCR	TAL PLS
Dissolved	Analysis	7470A		1	171234	11/19/14 13:25	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			171239	11/12/14 18:56	EYT	TAL PLS
Dissolved	Analysis	7199		1	170768	11/12/14 21:02	EYT	TAL PLS
Total/NA	Analysis	SM 2540C		1	264453	11/16/14 22:40	CLB	TAL CHI

## Client Sample ID: MW-3

Date Collected: 11/12/14 14:01

Date Received: 11/12/14 17:00

## Lab Sample ID: 720-61194-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			171007	11/17/14 09:44	NDU	TAL PLS
Total/NA	Analysis	8270C SIM		1	171231	11/19/14 16:53	MQL	TAL PLS
Total/NA	Prep	3510C			171036	11/17/14 14:54	DFR	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-61194-1

**Client Sample ID: MW-3**

**Lab Sample ID: 720-61194-3**

**Date Collected: 11/12/14 14:01**

**Matrix: Water**

**Date Received: 11/12/14 17:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	171287	11/20/14 15:20	JXL	TAL PLS
Dissolved	Filtration	FILTRATION			170874	11/13/14 16:31	ASB	TAL PLS
Dissolved	Prep	3005A			171102	11/18/14 09:02	JCR	TAL PLS
Dissolved	Analysis	6010B		1	171190	11/18/14 20:12	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			170874	11/13/14 16:31	ASB	TAL PLS
Dissolved	Prep	7470A			171193	11/19/14 07:48	JCR	TAL PLS
Dissolved	Analysis	7470A		1	171234	11/19/14 13:27	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			171239	11/12/14 18:56	EYT	TAL PLS
Dissolved	Analysis	7199		1	170768	11/12/14 21:14	EYT	TAL PLS
Total/NA	Analysis	SM 2540C		1	264453	11/16/14 22:43	CLB	TAL CHI

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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



# Certification Summary

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

TestAmerica Job ID: 720-61194-1

## 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	01-31-16

## 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	04-30-15
California	State Program	9	2903	04-30-15
Georgia	State Program	4	N/A	04-30-15
Georgia	State Program	4	939	04-30-15
Hawaii	State Program	9	N/A	04-30-15
Illinois	NELAP	5	100201	04-30-15
Indiana	State Program	5	C-IL-02	04-30-15
Iowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	01-31-15 *
Kentucky (UST)	State Program	4	66	04-30-15
Kentucky (WW)	State Program	4	KY90023	12-31-14 *
Massachusetts	State Program	1	M-IL035	06-30-15
Mississippi	State Program	4	N/A	04-30-15
New York	NELAP	2	IL00035	03-31-15
North Carolina (WW/SW)	State Program	4	291	12-31-14 *
North Dakota	State Program	8	R-194	04-30-15
Oklahoma	State Program	6	8908	08-31-15
South Carolina	State Program	4	77001	04-30-15
USDA	Federal		P330-12-00038	02-06-15
Wisconsin	State Program	5	999580010	08-31-15 *
Wyoming	State Program	8	8TMS-Q	04-30-15

\* Certification renewal pending - certification considered valid.



# Method Summary

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

TestAmerica Job ID: 720-61194-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS
7199	Chromium, Hexavalent (IC)	SW846	TAL PLS
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 PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



# Sample Summary

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

TestAmerica Job ID: 720-61194-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-61194-1	MW-1	Water	11/12/14 12:00	11/12/14 17:00
720-61194-2	MW-2	Water	11/12/14 13:05	11/12/14 17:00
720-61194-3	MW-3	Water	11/12/14 14:01	11/12/14 17:00

1

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14

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody  
 1220 Quarry Lane • Pleasanton CA 94566-4756  
 Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 157540

Date 11/12/14 Page 1 of 1

1/21/2014

## Report To:

Attr: Jason Grant  
 Company: Ninyo & Moore  
 Address: 1956 Webster St.  
 Email: jgrant@NinyoandMoore.com  
 Bill To: 401932001  
 Sampled By: FM  
 Attn: Phone: 510 348-3000

## Analysis Request

Volatile Organics GC/MS (VOCs)  
 EPA 8260B  
 EPA 8260B  
 HVOCs by  EPA 8260B  
 EPA 8260B:  Gas  BTEX  
 5 Oxygenates  DCA, EDB  Ethanol  
 TPH  Silica Gel  
 TEPH EPA 8015  Motor Oil  Other  
 Diesel  Motor Oil  Other  
 Semi-Volatile Organics GC/MS  
 EPA 8270C  
 PNA/PAH's by  8270C  
 8270C SIM  
 Oil and Grease  Petroleum  
 (EPA 1664/9071)  Total  
 Pesticides  EPA 8081  
 PCBs  EPA 8082  
 CAM17 Metals  
 (EPA 60107/4707471)  
 Metals:  60108  200.7  
 Lead  UET  ORCA   
 Other: Little 12 metals  
 Metals:  6020  200.8  
 (ICP-MS):  
 W.E.T (STLC)  TCLP  
 W.E.T (O)  TCLP  
 Hex. Chrom by  EPA 7195  
 or EPA 7199  
 pH  9040  
 SM4500  
 Spec. Cond.  Alkalinity  
 TSS  SS  TDS  
 Anions:  Cl  SO<sub>4</sub>  NO<sub>3</sub>  F  
 Br  NO<sub>2</sub>  PO<sub>4</sub>  
 Perchlorate by EPA 314.0  
 COD  EPA 410.4  SM5220D  
 Turbidity  
 by 7195 Hex Chrom by Chrom  
 TDS by SM2540C

Sample ID	Date	Time	Mat rix	Preserv
MW-1	11/12/14		W	-
MW-2	11/12/14		W	-
MW-3	11/12/14		W	-



720-61194 Chain of Custody

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**Project Info.**  
 Project Name/ #: Western Forge & Flange  
 PO#:   
 Credit Card Y/N:   
 If yes, please call with payment information ASAP

**Sample Receipt**  
 # of Containers: 21  
 Head Space:   
 Temp: 0.4/0.1

1) Relinquished by:  
 Signature: [Signature]  
 Time: 5:00  
 Printed Name: Forrest McFarland  
 Date: 11/12/14  
 Company: Ninyo & Moore

2) Relinquished by:  
 Signature: [Signature]  
 Time: 4:02  
 Printed Name: RAY FERRO  
 Date: 11-12-14  
 Company:

3) Relinquished by:  
 Signature:   
 Time:   
 Printed Name:   
 Date:   
 Company:

T	10	5	4	3	2	1	Other:
A	Day	Day	Day	Day	Day	Day	STD
T							

1) Received by:  
 Signature: [Signature]  
 Time: 4:04  
 Printed Name: RAY FERRO  
 Date: 11-12  
 Company:

2) Received by:  
 Signature: [Signature]  
 Time: 1:00  
 Printed Name: J. Gonzalez  
 Date: 11/12/14  
 Company:

3) Received by:  
 Signature:   
 Time:   
 Printed Name:   
 Date:   
 Company:

Report:  Routine  Level 3  Level 4  EDD  EDF  
 Special Instructions / Comments:  Global ID  
 Lab Filter For Metals & Hex Chrome  
 See Terms and Conditions on reverse

## Sharma, Dimple

---

**From:** Forrest McFarland <fmcfarland@ninyoandmoore.com>  
**Sent:** Wednesday, November 12, 2014 4:56 PM  
**To:** Sharma, Dimple  
**Cc:** Jason Grant  
**Attachments:** 20141112\_160522.jpg

Hi Dimple

For the Weatern Forge and Flange project in Albany please note sample times were as follows:

MW-1 @ 12:00

MW-2 @ 13:05 and

MW-3 @ 14:01

The times were not transfered to the COC.

Thanks for your understanding.

Forrest

Sent on the new Sprint Network from my Samsung Galaxy S3M

## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-61194-1

**Login Number: 61194**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Gonzales, Justinn**

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



## Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-61194-1

**Login Number: 61194**

**List Number: 2**

**Creator: Kelsey, Shawn M**

**List Source: TestAmerica Chicago**

**List Creation: 11/14/14 11:13 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	