DRAFT
Groundwater Sampling and Analysis Report 2nd Quarter 2009

Camp Bonneville Military Reservation
23201 Northeast Pluss Road,
Vancouver, WA 98682

Prepared For:
Washington State Department of Ecology

Prepared By:
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September 2009

BCRRT

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1.0 INTRODUCTION

This document presents the results of the Groundwater Sampling and Analysis, 2nd Quarter 2009 as part of Remedial Action Unit 2C (RAU 2C) at the former Camp Bonneville Military Reservation (CBMR) in Clark County, Washington (**Figures 1.1 and 1.2**). This report has been prepared for and is submitted by the Bonneville Conservation Restoration and Renewal Team, LLC (BCRRT), the current owner of the CBMR. The report is based on previously approved Draft Supplemental Groundwater Remedial Investigation Work Plan (GWP; BCRRT 2006, revised 2007), previous remedial investigations, previously submitted groundwater monitoring reports for Landfill 4/ Demolition Area 1 (LF4/DA1) and Site-Wide Groundwater Sentinel wells, and direction given by Washington Department of Ecology (Ecology). This submittal is part of an ongoing dialogue between the Ecology and the BCRRT regarding the applicable requirements of the Prospective Purchaser Consent Decree (PPCD; Ecology, 2006) as it relates to the RAU 2C, which addresses groundwater quality concerns.

This quarterly report includes:

- Section 1 - Introduction
- Section 2 – Site Background,
- Section 3 - Groundwater Sampling,
- Section 4 - Data management and data quality assessment (DQA),
- Section 5 - Groundwater monitoring results,
- Section 6 - Recent trends in groundwater quality,
- Section 7 - References.

This report is submitted in support of the remedial RI/FS and the specifications of regulations promulgated under the Washington State Model Toxics Control Act (MTCA) as set forth in Title 173-340 of the Washington Administrative Code (WAC) Section 350 – Remedial Investigation and Feasibility Study [WAC 173-340-350], the requirements of WAC 173-340-360 concerning the evaluation of cleanup action alternatives.

1.1 Purpose and Scope

The purpose of this groundwater monitoring for RAU 2C is to document and present:

- Address groundwater contamination arising from anthropogenic activities and determine the nature and extent of groundwater contamination at CBMR;

- Collect sufficient data to meet the Model Toxics Control Act (MTCA) requirements for site characterization (WAC 173-340) and other applicable groundwater monitoring guidelines published by Ecology (Ecology 1995, 2001, 2004, 2005a, 2005b and Cruz 2005).

- Generate data necessary to evaluate remedy performance; and,

- Provide an early warning should any contamination pose a threat to water supply wells or surface waters on or off CBMR.

1.2 General Site Information

This section contains the following general facility information:

Project title: Remedial Investigation/Feasibility Study RI/FS for Site-Wide Groundwater - Remedial Action Unit 2C

Project coordinator: Name: Michael Gage
Address: Bonneville Conservation Restoration and Renewal Team, LLC
23201 Northeast Pluss Road
Vancouver, WA 98682
Phone number: (360)566-6990

Facility location: LF4/DA1 is within the boundaries of Camp Bonneville which is located in southwestern Washington; approximately 5 miles east of the Vancouver City limits in Clark County (see **Figure 1.1**).

Dimensions of facility: Camp Bonneville consists of approximately 3,840 acres. The LF4/DA1 consists of an approximately 1.82 acres located about 1,800 feet north of the Central Valley Floor and 2.5 miles northeast of where Lacamas Creek exits Camp Bonneville.

Present owner and operator: Camp Bonneville are owned and operated by the by BCRRT, LLC.

Chronological listing of past owners and operators and operational history: Since the early 1900's, the Department of the Army has owned and operated the Camp Bonneville site. In October 2006, the Army transferred ownership of the property to the County, which subsequently transferred the land to the BCRRT. BCRRT will hold the deed of the property during investigation and clean-up activities at the site. After the property is cleaned to Ecology standards the BCCRT will transfer the property back to the County

1.3 Site Location and Current Land Use

The 3,840-acre Camp Bonneville site is located northeast of Vancouver, Washington, in the southeastern region of Clark County (**Figure 1.1**). The property is approximately five miles from Vancouver, Washington and approximately seven miles north of the Columbia River. Camp Bonneville is located along the western foothills of the Cascade Mountain Range, with Camp Hill and Little Elkhorn Mountain to the northwest, Munsell Hill to the west, and Little Baldy Mountain to the south.

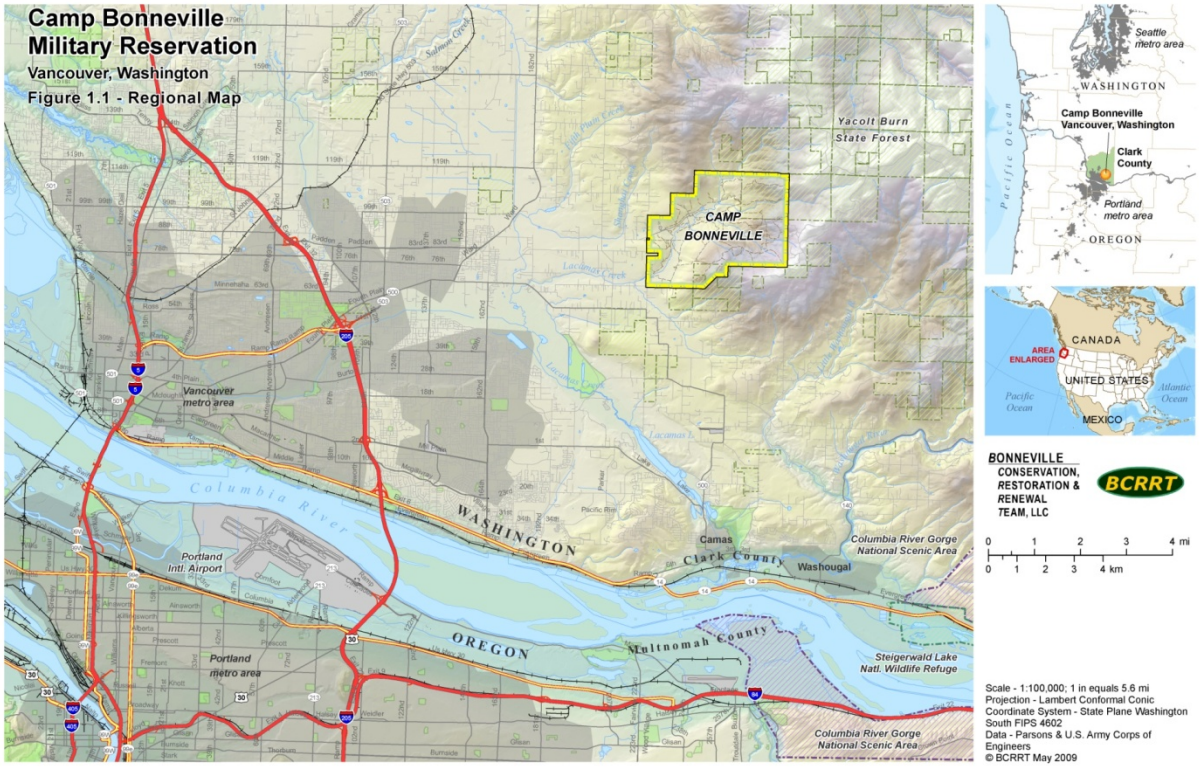
Vehicular access to Camp Bonneville is restricted to a single entrance. The entrance is located on SE 232nd Ave. and enters the site from the west at the Camp Killpack cantonment. The entrance is gated and monitored. Most recently, the facility had been used for weekend and summer training by the U.S. Army Reserve and Navy Reserve units from Southern Washington and Northern Oregon and was a sub-installation of Fort Lewis. Other Reserve and National Guard components, as well as the Federal Bureau of Investigation (FBI) and local law enforcement units, have also used the site. Operations at the facility seized in 1995 when CBMR was selected for closure under the 1995 Base Realignment and Closure (BRAC) process. From 1995 through 2008, the FBI and other law enforcement agencies continued to use the firing range known as the

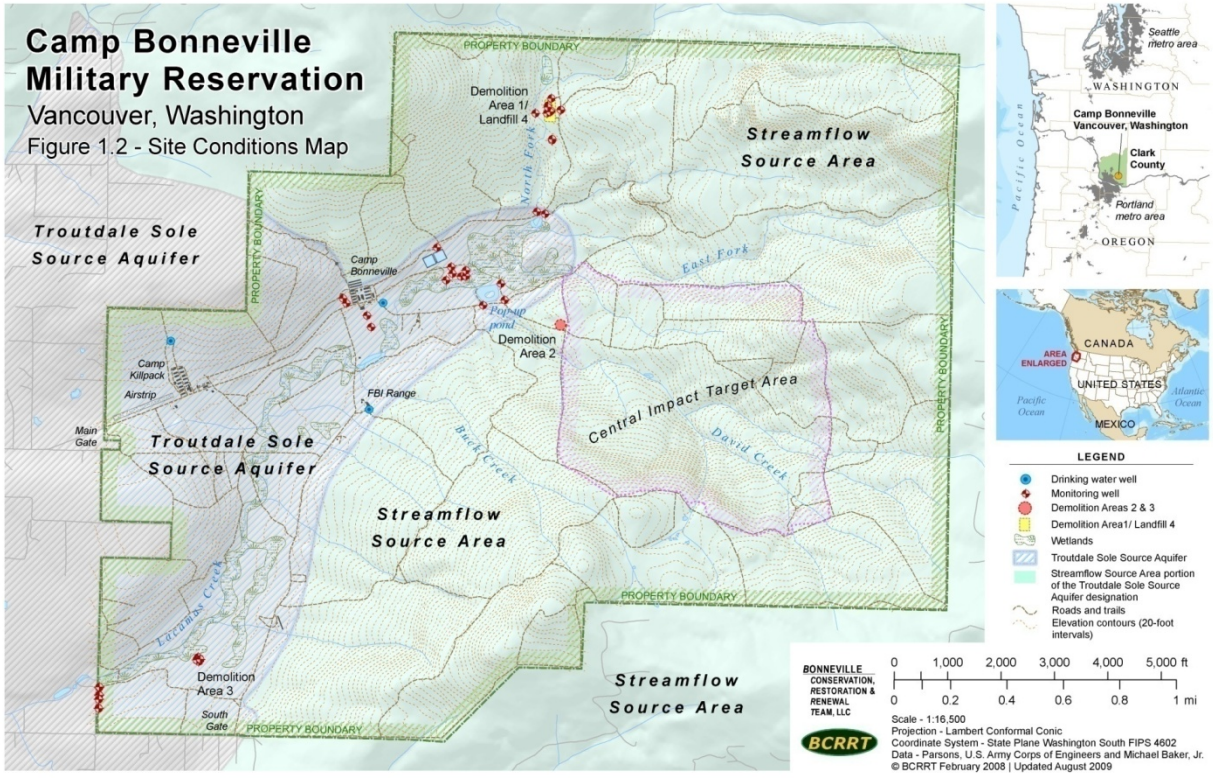
FBI Range. Currently, there is no military or law enforcement use of Camp Bonneville (grants for use of the site were cancelled beginning in November 1996). Camp Bonneville is mostly undeveloped, forested hillsides and creek side drainages. Former military barracks and training facilities are concentrated at Camp Killpack and Camp Bonneville cantonment areas. Other developed areas include firing ranges, a paved two-lane road connecting the main gate with the two cantonment areas, and a network of unpaved roads.

Between 1910 and 1995, the Army used Camp Bonneville for live fire of small arms, assault weapons, artillery, and field and air defense artillery. In the early 1950s, the Department of Defense arranged to lease an additional 840 acres from the State of Washington to expand training possibilities off of the post.

Since the Camp was officially closed, investigations have been conducted by the Army and its consultants in order to characterize the nature and extent of contamination at the site and to develop a plan for potentially transferring ownership. Clark County (County) expressed interest in the site and began the process for obtaining the property by developing a Reuse Plan. The Reuse Plan developed called for the majority of Camp Bonneville to be transferred to the County for the public benefit – education, law enforcement, and parks, with no financial gain to the County. Over the intervening years, several unsuccessful attempts were made to transfer Camp Bonneville from the Army to Clark County.

In October 2006, the Army transferred ownership of the property to the County which immediately transferred the land to the BCRRT. BCRRT will hold the deed of the property during investigation and clean-up activities at the site. After the property is cleaned to Ecology standards, BCCRT will transfer the property back to the County. The County will then begin implementing the Reuse Plan.


Camp Bonneville
Military Reservation
Vancouver, Washington
Figure 1.1 - Regional Map
CAMP BONNEVILLE
Yacolt Burn State Forest
Vancouver metro area
Columbia River
WASHINGTON
OREGON
Portland Intl. Airport
Portland metro area
Camas
Washougal
Clark County
Multnomah County
Columbia River Gorge National Scenic Area
Steigerwald Lake Natl. Wildlife Refuge
Seattle metro area
Camp Bonneville Vancouver, Washington
Clark County
Portland metro area
CANADA
AREA ENLARGED
UNITED STATES
MEXICO
Pacific Ocean
Atlantic Ocean
BONNEVILLE CONSERVATION, RESTORATION & RENEWAL TEAM, LLC
BCRRT
0 1 2 3 4 mi
0 1 2 3 4 km
Scale - 1:100,000; 1 in equals 5.6 mi
Projection - Lambert Conformal Conic
Coordinate System - State Plane Washington South FIPS 4602
Data - Parsons & U.S. Army Corps of Engineers
© BCRRT May 2009


Camp Bonneville
Military Reservation
Vancouver, Washington
Figure 1.2 - Site Conditions Map
PROPERTY BOUNDARY
Demolition Area 1/ Landfill 4
Streamflow Source Area
Troutdale Sole Source Aquifer
North Fork
East Fork
Camp Bonneville
Pop-up pond
Demolition Area 2
Central Impact Target Area
Camp Killpack Airstrip
FBI Range
Main Gate
Buck Creek
David Creek
Lacamas Creek
Demolition Area 3
South Gate
Seattle metro area
Camp Bonneville Vancouver, Washington
Clark County
Portland metro area
CANADA
AREA ENLARGED
UNITED STATES
MEXICO
LEGEND
Drinking water well
Monitoring well
Demolition Areas 2 & 3
Demolition Area1/ Landfill 4
Wetlands
Troutdale Sole Source Aquifer
Streamflow Source Area portion of the Troutdale Sole Source Aquifer designation
Roads and trails
Elevation contours (20-foot intervals)
BONNEVILLE CONSERVATION, RESTORATION & RENEWAL TEAM, LLC
BCRRT
0 1,000 2,000 3,000 4,000 5,000 ft
0 0.2 0.4 0.6 0.8 1 mi
Scale - 1:16,500
Projection - Lambert Conformal Conic
Coordinate System - State Plane Washington South FIPS 4602
Data - Parsons, U.S. Army Corps of Engineers and Michael Baker, Jr.
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2.0 SITE BACKGROUND

The overall groundwater evaluations were summarized and discussed the BCRRT, August 2009. Draft Remedial Investigation/Feasibility Study (RI/FS) for Site-Wide Groundwater Remedial Action Unit 2C (RAU 2C), Camp Bonneville, Vancouver, Washington. This Groundwater RI/FS presented the previously approved remedial investigations, no-further-action determinations, ongoing groundwater monitoring, and direction given by Ecology. The following excerpts are from this document (shown in *italics*) and provide a brief overview the Site-Wide Groundwater Sentinel Wells and Landfill 4 /Demolition Area 1 portions of CBMR:

"3.4 Sentinel Wells

A series of eight groundwater monitoring wells were installed along the valley floor at the western boundary of the CBMR. Included were: shallow wells (top of the aquifer) LCMW01S, LCMW02S, LCMW03S and LCMW04S; and deep wells (bottom of the aquifer) LCMW01D, LCMW02D, LCMW03D and LCMW04D (see ***Figure 3.5****). These Sentinel Wells were constructed for the express purpose of determining whether contaminants, regardless of source, were flowing off of the CBMR at this location."*

"3.4.2 Groundwater Flow

The shallow sets of Sentinel Wells have exhibited water level measurements that indicate a water table measured at these locations that is representative of the water table of the valley floor. The surface of the shallow aquifer is sloped from the south to the bank of Lacamas Creek, showing that water recharged on the sides of the basin flows downward into the valley where it likely turns and flows westward in parallel with the creek. Some exceptions occurred in 2004 and 2005, when the well nearest Lacamas Creek, LCMW01S suggests under certain conditions, Lacamas Creek is a losing stream in this area and is recharging local groundwater. Hence, there is a small mounding affect beneath and approximate to the creek that diminishes in a relatively short distance due to the steep slope of the terrain.

Depending on the season, groundwater and the Creek maybe contributing to each other along the southwestern portion of the CBMR. A comparison of water levels measured in the paired shallow Sentinel wells indicates that Lacamas Creek is a losing stream in this portion of the creek during limited periods of time. Groundwater discharges to Lacamas Creek at other times such as in December 2003 and 2004 when the deeper well (LCMW01D) has a higher water level than the shallow well (LCMW01S). The further monitoring wells are from Lacamas Creek, the more frequently they display downward gradients indicative of active recharge zones. The exceptions occur in wetter months (April and December) when some wells display upward gradients indicative of water flowing from the basin walls and surging upwards as it approaches the valley floor. This may indicate a finite thickness for water flow that may create surface seeps during wet weather.

In summary, groundwater flows from the sides of the basin down into the valley floor just as surface runoff would flow. Using the water level data from the OB/OD Area 3 wells in conjunction within the Sentinel Wells it is clear that groundwater flows from the east to

the west, draining the sub-surface basin just as Lacamas Creek drains the topographic basin. Moreover, comparison of water levels from all 27 monitoring wells installed at CBMR confirm the conceptual model that groundwater flow is analogous to the flow of surface water in Lacamas Creek and its tributaries. Water flows down from the basin walls and out the valley, leaving the site at the point where Lacamas Creek crosses the site boundary."

"3.1.2 Data Analysis

Groundwater samples were collected from the Sentinel Wells -- four two-well pairs (for a total of eight wells) located near the western boundary of Camp Bonneville where Lacamas Creek exits the site to the west (Site-Wide Groundwater Sentinel Wells, labeled as LC wells). Recent sampling results are summarized as follows:

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- *With the use of dedicated pumps and low flow purging/sampling techniques (which are designed to obtain water samples with lower turbidity), the reported total and dissolved metals concentrations have decreased significantly. All of the total and dissolved metals detections in groundwater from these wells are were below MTCA Method A and B regulatory screening levels with the exception of results for beryllium, which have consistently been reported as estimated values (i.e., groundwater sample concentrations of beryllium detected above the Method Detection Limit (MDL) but below the Minimum Reporting Limit (MRL) of the laboratory analytical equipment and whose accuracy is limited).*

- *Petroleum hydrocarbons have not been detected in any of the Sentinel Wells throughout the monitoring period of over seven years except for an isolated detection of diesel range petroleum hydrocarbons in LCMW02DW at 0.15 mg/L in January 2006.*

- *Perchlorate and explosive constituents have never been detected at any of the Sentinel Wells during seven years of groundwater monitoring.*

The groundwater samples collected and analyzed to date display no reliable evidence of any contaminant in site groundwater being present at or near the site boundary or leaving the CBMR. All explosive compounds and total petroleum hydrocarbons were below the limits of detection.

Perchlorate had been detected near or at the MRL of 1 ug/L it an individual well on occasion (2004, 2005, 2008 and 2009). However, these data were found to result from laboratory errors (i.e. false positives) based on one or more of the following factors: non-detectable duplicate sample, rejection by third-party independent validator, laboratory process audit, or confirmation sampling.

Naturally occurring levels of inorganic elements were observed in the parts per billion ranges in both shallow and deep wells. The highest observed concentrations are generally associated with groundwater samples that had a high level of suspended solids in them. The comparable filtered sample for many of the metals displayed lower concentrations, indicating the elevated reading was the result of the acid preservative

dissolving materials from the soil particles suspended in the sample. In any event, none of the metal concentrations (total or dissolved) from Sentinel Wells exceeded MTCA Method A or Method B criteria."

"3.4.3 Status Summary

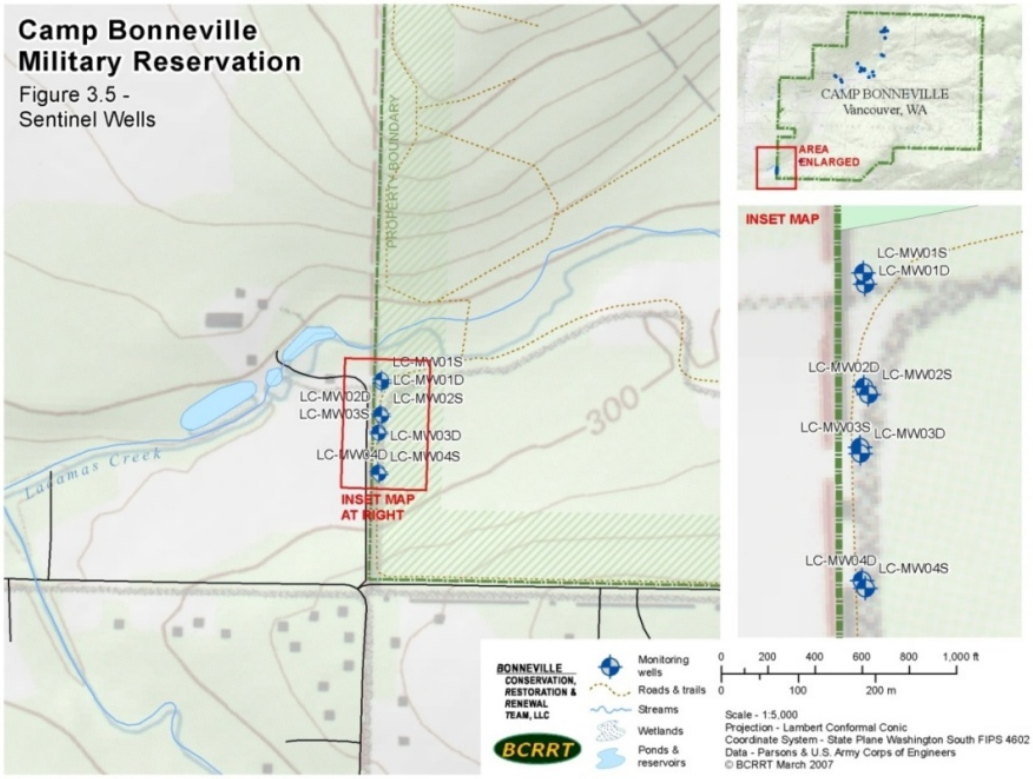
Given the extensive groundwater monitoring that has been conducted at the Sentinel Wells (located across the Lacamas Creek valley) and the lack of contaminant findings over this extended period of time, Ecology adjusted the groundwater monitoring:

- *There are no chemicals of concern in groundwater at the Sentinel wells. No explosive, propellants, petroleum hydrocarbons, metals, SVOCs, or VOCs (except common laboratory contaminants) have been detected at levels of concern. .*

- *Four of the wells are cross-gradient and higher in elevation than the nested wells MW01S, MW01D, MW02S, and MW02D. If any groundwater contaminant plume migrates via a cross-gradient pathway (note that none have ever been detected at the CBMR boundary or the upgradient area near OB/OD Area 3) any potential contamination would be detected in these wells closer to Lacamas Creek rather than the nested wells MW03S, MW03D, MW04S and MW04D.*

- *Chemical analyses for VOCs, SVOCs, petroleum hydrocarbons (gas, diesel and oil range), and total/dissolved metals in groundwater samples from the Sentinel wells has been stopped as these analytes have never been detected in any of the sampling events conducted over more than six years..*

  <u>While no constituents of concern have been detected, the Sentinel Wells will continue to be monitored per the Long-Term Monitoring Obligations in the PPCD."</u>



"3.2 Landfill 4/Demolition Area 1

Landfill 4/Demolition Area 1 (LF4/DA1) is located about 5,000 feet northeast of the Camp Bonneville Cantonment; the landfill underlies Demolition Area 1 (see ***Figure 1.2****). Vancouver Barracks reportedly used the site for the disposal of building demolition debris during the mid-1960's. According to the Environmental Baseline Survey (EBS, Woodward Clyde 1999), the former CBMR facility manager reported that firearms and ammunition were also disposed at this location. Identified potential contaminants at the CBMR included building demolition debris, explosive and propellant residue, and debris from historic onsite ordnance demolition activities, total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), organochlorine insecticides and herbicides, and metals. According to the Supplemental Archive Search Report (SASR, URS 1999), historic activities at CBMR included training and disposal of unserviceable ammunition. In addition, the site had been used by a number of groups and agencies, including the Army, Portland Air National Guard (PANG), local Fire Departments, and law enforcement for training and disposal operations. For example, the Bureau of Alcohol Tobacco and Firearms brought explosive and firearms to this location for disposal by open detonation."*

"3.2.1 Previous Investigations Summary

Site investigations (SI) were conducted to evaluate the potential for contamination resulting from past uses of the LF4/DA1. The investigation was directed primarily at evaluating potential environmental impacts from waste disposal within the landfill, but also took into account potential impacts from activities related to use of the site as an OB/OD ordnance demolition area. The primary objectives of the investigation were to evaluate whether the site poses a potential risk to human health or the environment, and to provide recommendations for additional actions (where appropriate), either for site remediation or to conduct additional investigations to better evaluate the need for and extent of remediation. The LF4/DA1 SI consisted of UXO avoidance, geophysical surveying, surface soil sampling, drilling and subsurface soil sampling, monitoring well installation and development, and groundwater sampling (URS 2003).

An area of buried debris disposal was identified to be approximately 120 by 200 feet during the geophysical survey. Other than a ground-penetrating radar (GPR) survey, no other types of testing were performed to delineate the actual presence of chemical constituents. The depth of the landfill material could not be determined through the use of geophysics; based on GPR profiles, it appeared to extend more than 11 feet bgs. During January 1999, groundwater was encountered at a depth of 10.4 feet below ground surface in monitoring well L4MW01 (upgradient well) and at 18.8 feet bgs in well L4MW02 (downgradient well). The report suggested that some of the landfill material could be in contact with groundwater, at least seasonally (URS 2003).

During the 2003 SI, the only constituents detected in soil (both near-surface and subsurface) at concentrations exceeding a MTCA Method B criteria were barium, copper, and possibly chromium. Total chromium was analyzed; however, the lowest screening criterion (which was exceeded) is based on chromium+6 (VI). Elevated barium and copper concentrations were detected in both upgradient and downgradient soil-boring samples. Arsenic, beryllium, and nickel were detected in soil samples at concentrations above MTCA Method B criteria for groundwater protections but below

background levels for Clark County. Low levels of one or more SVOCs, insecticides and herbicides, and VOCs were detected in some samples; however, concentrations of these constituents did not exceed the screening criteria, and several were suspected to be laboratory contaminants. Two surface soil samples were collected at RAU 2C, and 15 deeper soil samples were obtained from five borings drilled outside of the landfill area (URS 2003).

Initially, the only constituent detected in groundwater at a concentration exceeding a screening level was Royal Demolition Explosive (RDX, aka, cyclotrimethylene-trinitramine or hexahydro-1,3,5-trinitro-1,3,5-triazine). This compound was detected only in the presumed downgradient well (L4MW02). RDX may be associated with surface or near-surface ordnance demolition activities, rather than with deeper buried building demolition debris. Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) was also detected in L4MW02 (A), but at a concentration below the screening criteria. Low levels of three VOCs were detected in one or both wells; however, the concentrations detected were below the screening criteria. Subsequently, groundwater samples from the immediate area were found to contain perchlorate. Additional wells were installed to determine both the probable direction in which the extant plume was moving and the extent of the plume. The final two wells were installed in June of 2004 along the inferred path of migration. A total of 11 wells remain for monitoring purposes at LF4/DA1: L4MW01A; L4M201B; L4MW02A; L4MW02B; L4MW03A; L4MW03B; L4MW04A; L4MW05A; L4MW07B; L4M217; L4MW18. The A wells are installed and screened in the first water bearing strata encountered, while B wells are completed in the weathered bedrock. Wells L4MW17 and L4MW18 are relatively shallow wells completed just into the bedrock in a location where the alluvium is but a few feet thick (URS 2003).

Due to its relatively small size, location, explosive material hazards and potential impact to groundwater, the Army agreed to excavate and dispose of material in RAU 2C. In June 2004, a source removal action was initiated at LF4/DA1 for which the objective was to remove all fill materials and all soil contaminated above action levels. During the removal action, no construction debris was observed. In addition to materials associated with the surface ordnance disposal activities, three pits were discovered that had apparently been used for burning fireworks. Based on site observations, it appears that excess fireworks were placed in the pits and soaked with diesel oil prior to ignition. Combustion does not appear to have been complete and intact fireworks were recovered during the removal action. The pits were dug well into the heavy clay soil and one pit was completed into the saturated zone. The placement of fireworks in the saturated zone explains the observed contamination of groundwater with perchlorates in an environment that otherwise would not have significant infiltration. Following completion of the IRA excavation in September 2004 (see ***Figure 3.17****), confirmatory samples indicated residual impacted soils at >20 feet below ground surface (bgs) for perchlorate, one location at > 8 feet bgs for RDX, and one location for HMX at > 5 feet bgs were present (see* ***Figure 3.17*** *and Tetra Tech 2006). Based upon the final confirmatory samples taken in December 2004, Ecology approved the completion of the soil excavation.*

The excavation was filled to within three feet of the surface in January 2005 with clean and/or screened soils; however, the excavation was not completely filled in and graded until June 2005. Therefore, there was almost a year-long period (June 2004 to June 2005) when the excavation remained open. The open pit would have induced increased

recharge through the ponding of rainfall, which would have infiltrated into the fill and surrounding subsurface soils. This would have resulted in the mounding of groundwater beneath the excavation for one year and in the subsequent mobilization of many dissolved constituents that had not been mobile before.

During the Interim Removal Action in 2004/2005, the likely source of contaminants was found to be a series of pits dug to the water level for the disposal of fireworks (believed to have occurred in the 1991 timeframe). While most of the perchlorate and RDX source material was removed, perchlorate and RDX remain in the subsurface

Changes to the local hydrology occurred during and after the IRA from excavations that were 1) advanced into more permeable zones, 2) were left open and/or filled with granular material for up to a year before final backfilling and placement of topsoil/cover material, and 3) regraded the site which changed the surface runoff/recharge.

*BCRRT subsequently conducted three soil borings and collected groundwater samples using a Geoprobe® within the perimeter of LF4/DA1 with the highest residual perchlorate concentrations in soil according to the Final Interim Removal Action Report (Tetra Tech, February 2006) and are discussed below. The locations for the borings were upgradient, east, and southeast of LF4-MW-2B (see **Figure 3.8**).*

*In addition to the LF4/DA1 sampling, surface water samples were collected from Ecology selected locations in the North Fork of Lacamas Creek where there is a potential to receive groundwater from LF4/DA1. Water samples were collected from the center of the water column and along the eastern bank. Sampling and perchlorate analysis of three surface water locations in the North Fork of Lacamas Creek – (1) upstream/northwest of MW-4A, (2) directly across/west of LF4-MW2A&B pair, and (3) downstream/south where the creek goes through two 90°bends and the mapped residual Troutdale bedrock pinches out (see **Figure 3.8**).*

*Soil, groundwater, and surface water samples were collected for laboratory analysis for perchlorate and geotechnical/in-situ analysis for hydraulic conductivity (see **Appendix D**):*

- *Soil samples collected at various depths analyzed for perchlorate contained concentrations ranging from non-detect (fill material) to 2,100 ug/kg. Residual perchlorate was detected in the unsaturated soil. The upper zones of the borings indicated sandy silt while the lower zones indicated granular sand with some silt. The concentrations of perchlorate were consistent with the IRA confirmation samples (Tetra Tech 2006).*

- *Shallow groundwater perchlorate concentrations were 420 ug/L and 760 ug/L while a deeper sample was 350 ug/L.*

- *Three surface water samples and one field duplicate were collected from Lacamas Creek were all non-detectable for perchlorate.*

- *Three geotechnical samples revealed the following concerning the following about*

subsurface soils at LF4/DA1

:

- *30' to 36' is a Silty Sand (SM) with a specific gravity of 2.757, a soil porosity of 66.0%, and composed of 55.7% sand, 34.1% silt and 10.2% clay,*
- *36' to 39' is a Silty Sand (SM) with a specific gravity of 2.756, a soil porosity of 64.6%, and composed of 60.3% sand, 33.4% silt and 6.3% clay, and*
- *40' to 41' is a Sandy Silt (ML) with a specific gravity of 2.769, a soil porosity of 65.7%, and composed of 49.8% sand, 38.8% Silt and 11.4% clay.*

- *Hydraulic conductivity results from geotechnical samples, in-situ aquifer tests, and previous aquifer tests performed by others are included as* ***Appendix D."***

"3.2.2 Site Specific Conditions

3.2.2.1 Surface Water Hydrology

The North Fork of Lacamas Creek bounds the LF4/DA1 to the north, west, and southwest and flows to the south where it enters the Central Valley and joins with the East Fork. The water quality of Lacamas Creek is monitored indirectly south of the LF4/DA in two monitoring wells that straddle the North Fork of Lacamas Creek (where it enters the Central Valley) and in the Sentinel Wells located where Lacamas Creek exits Camp Bonneville.

According to the March 2000 Final Project Completion Report, Surface Water Investigation of Lacamas Creek, Camp Bonneville, Vancouver, Washington, (Hart Crowser, 2000), the results of water samples collected from Lacamas Creek and North Fork of Lacamas Creek indicated that LF4/DA1 has not impacted surface water quality..

While the LF4/DA1 area is technically within the Streamflow Source Area for the Troutdale Sole-Source Aquifer System, it is in that portion of the Streamflow Area that contributes via surface water recharge of the Central Valley sediments – no groundwater recharge is believed to occur. The groundwater in the LF4/DA1 area does not directly connect to the Central Valley but may discharge into the North Fork of Lacamas Creek, where it would undergo significant dilution based on the size of the creek's recharge basin vs the LF4/DA1 recharge area.

3.2.2.2 Geology

Figures 2.2 and 3.8 *show that the LF4/DA1 site is isolated geologically and is surrounded by wide expanses of the impermeable andesite bedrock (Tbem). Essentially the LF4/DA1 is located within a geologic "island" comprised of the conglomerate (see see* ***Section 2.4.2****) members of the Troutdale Formation (Ttfc), and there is no connection of the LF4/DA1 to the Troutdale units on the western edge of the CBMR.*

In three dimensions, the geology of the LF4/DA1 area may be more accurately described as a Ttfc "cap" on a hillside otherwise consisting of Tbem. However,

little remains of the original appearance of either rock formation due to extreme weathering. Well logs show that both units exist as sands, silts, and clays to a depth of about 70 feet. The conglomerate member of the Ttfc has been weathered to clayey silt and the andesite bedrock to sandy clay (see ***Section 2.4.2*** *and well logs in* ***Appendix B****).*

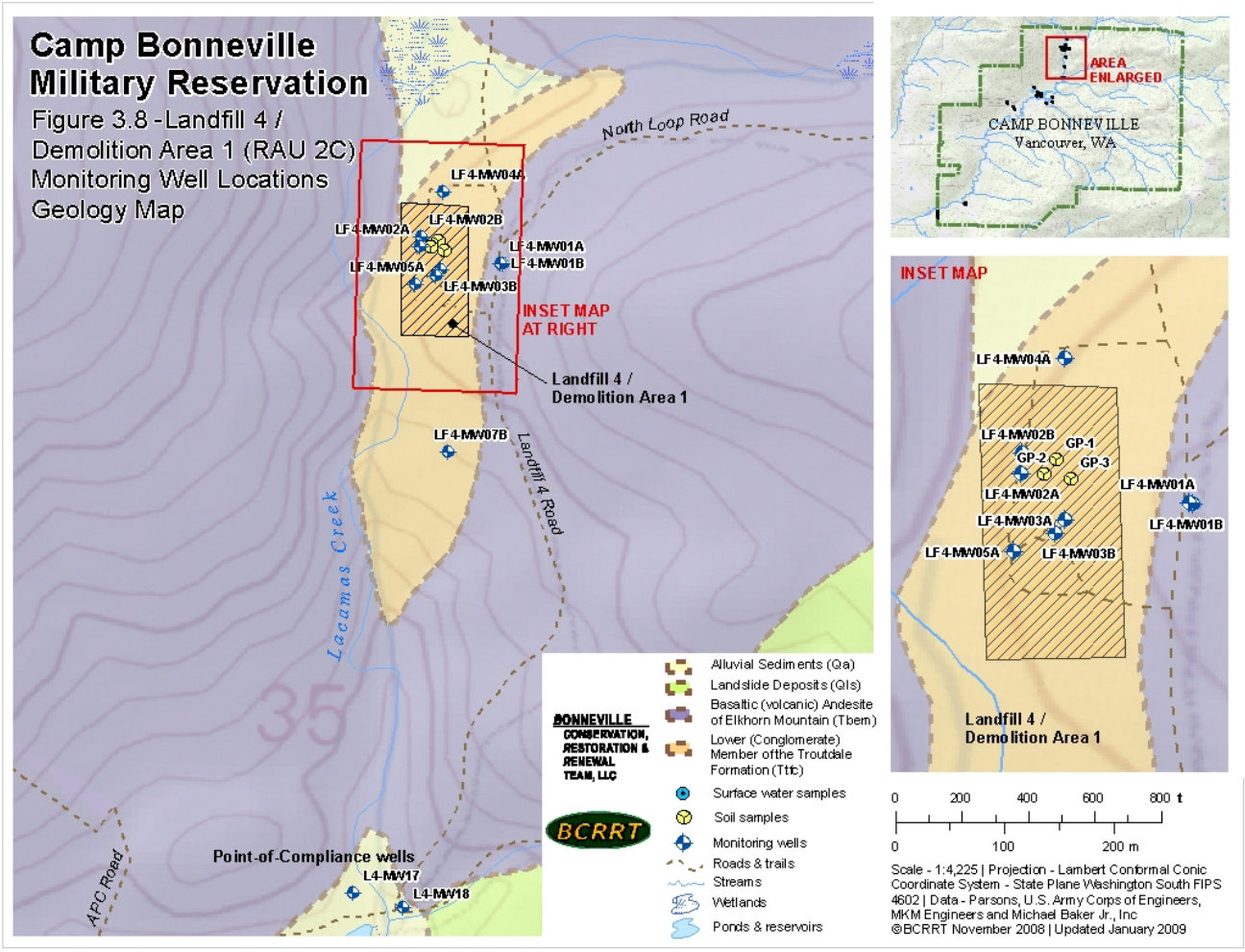
3.2.2.3 Hydrogeology

LF4/DA1 is located in an upland area of Camp Bonneville, north of the Central Valley. ***Figure 3.8*** *presents is a geologic map superimposed upon a topographic map and shows that there is a remnant valley fill of Ttfc (conglomerate member of the Troutdale Formation) beneath the site. However, this formation extends only to a maximum depth of about 15 feet near MW-2B and is not saturated. Groundwater occurs only within the saprolitic soil formed from the heavily weathered andesitic bedrock of the Elk Mountain basalt (Tbem)*

A total of ten monitoring wells were installed around and near LF4/DA1 as part of the investigation of RAU 2C –LF4/DA1 (URS, 2003). Five of the wells (LF-MW-1A, 2A, 3A, 4A, 5A,) were screened in shallow soils (30 to 45 feet bgs) and four wells (LF-MW-1B, 2B, 3B, 7B) were screened in deep soils atop competent bedrock (50 to 72 feet bgs). Another shallow well (MW-6A) was installed to bedrock on the steep hillside west of the landfill and east of Lacamas Creek, but was reported as dry and has not been used. In the most recent sampling event (September 2008), the depths to water in the shallow wells ranged from 17 to 31 feet and those in the deep wells from 14 to 41 feet (see ***Appendix B****).*

At the LF4/DA1 site, all of the saturated overburden material encountered was saprolite and heavily weathered from the parent material (andesitic basalt with zeolite inclusions) into sandy silt or silty sand with white mottling. This overburden material graded into increasingly larger grain sizes with depth until competent rock was reached. There were zones of saturated sandy, silty, or clayey (angular) gravels atop the competent bedrock. Within the competent bedrock, open fractures were noted in the three rock cores (LF-MW-1B, 2B, and 3B) at LF4/DA1, most of which were reported as being oriented horizontally or nearly so (URS, 2003).

Such rock characteristics tend to direct groundwater flow horizontally within the overburden and the relatively shallow weathered zones of bedrock until it can move upwards in response to a hydraulic discharge point of lower pressure head (e.g., a stream). Therefore, groundwater occurrence in the bedrock is generally in the uppermost weathered/fractured zones and especially in the gravelly portions atop the competent rock."



"3.2.2.4 Groundwater Flow

*Groundwater elevation data from a typical sampling event (September 2008, see **Appendix B**) were mapped for groundwater flow direction analysis in the following figures. **Figure 3.9** is typical of the historical groundwater flow pattern in the shallow zone and it indicates that shallow groundwater flows west from LF-MW-1A until a groundwater divide is reached, where the flow separates toward either north (toward LF-MW-4A) or south (toward LF-MW-3A and 5A). **Figure 3.10** is typical of the deeper zone and indicates that the deeper groundwater flows west from MW-1B in a semi-radial fashion toward the North Fork of Lacamas Creek, which is consistent with the surface topography. Therefore, groundwater from the LF4/DA1 site is expected to discharge to the North Fork of Lacamas Creek within 300 feet west and/or 250 feet southwest of the LF4/DA1 site."*

Figure 3.9 *– Typical shallow groundwater elevation contours.*

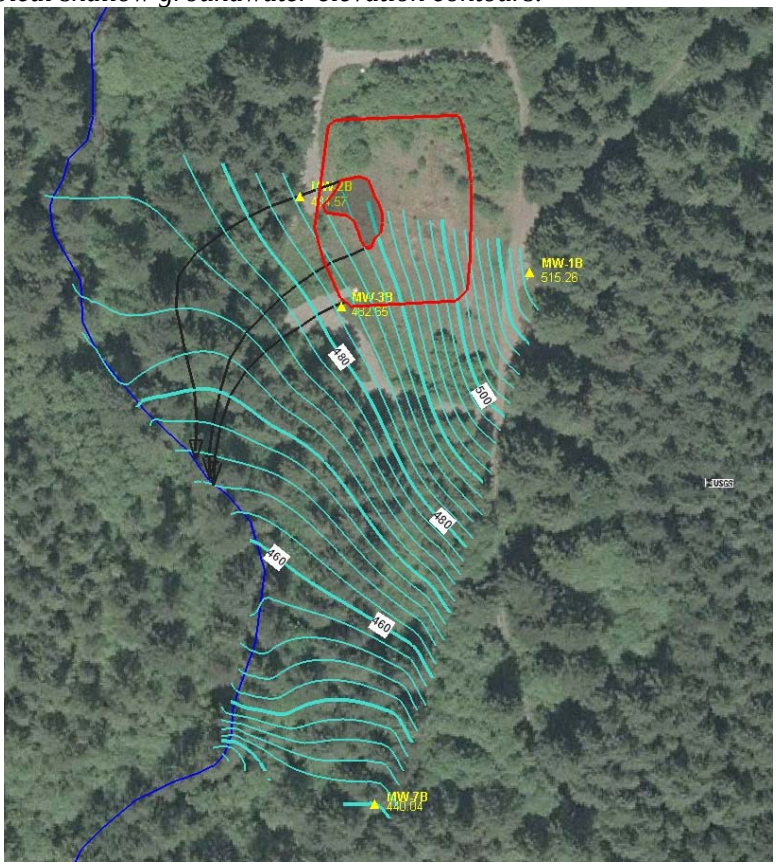


Figure 3.10*– Typical deep groundwater elevation contours.*

Two hydrogeologic cross-sections were also constructed using the same data set. ***Figure 3.11*** *is a south-to-north cross-section from LF-MW-5A to 4A showing the groundwater divide in more detail, including the vertical dimension. LF-MW-2B lies just south of the groundwater divide.* ***Figure 3.12*** *shows a west-to-east cross-section from LF-MW-1A to 2B. This figure shows the change in the vertical flow component across the site: near LF-MW-1B, the flow is mostly horizontal. Toward the west, the flow becomes increasingly vertical. It appears that increased infiltration through the relatively permeable fill in the formerly excavated area is causing this alteration in the vertical flow gradients.* ***Figure 3.12*** *also may demonstrate why LF-MW-2B groundwater contains the highest perchlorate/RDX concentrations: the bedrock surface dips toward the west and, as impacted groundwater flows along the top of competent rock, it flows near well LF-MW-2B.*

Estimates of the hydraulic conductivity of the saturated zones beneath LF4/DA1 had been made previously by using slug tests in several wells (URS 2003). However, the previous report questioned some of their own results as not corresponding to the observed stratigraphy (i.e., relatively high K values in silts and clays); therefore, the accuracy of their slug test data and/or analyses is doubtful. The raw slug test data and the corresponding digital AqTeSolv® files for those tests are not currently available for re-analysis.

A step-drawdown "yield" test had also been performed (URS 2003) in LF-MW-2B, but the data were not evaluated for hydraulic conductivity; fortunately, those data were available and were re-analyzed. The pumping rate and drawdown/recovery data were input to AqTeSolv® (version 3.5 Professional, Duffield, 2002) and analyzed using the Theis method for variable-rate pumping tests in an unconfined aquifer (a modification of Theis, 1935). The drawdown data in the pumping well were assumed to be greater than that in the formation due to friction in the well. The result was a good graphical match with the late recovery data, which are not affected by friction losses during the pumping phase. The result was a transmissivity value (T) of 9.0 ft^2/d, which, when divided by the aquifer saturated thickness (b) of 44 feet, yields a hydraulic conductivity value (K) of 0.204 ft/d (7.2e-5 cm/sec).

This K value will be used along with other values derived from the Supplemental Data Collection slug tests conducted recently to obtain a representative K value for fate calculations. GP-3 was slug-tested three times each at two different depths (29 feet and 38 feet bgs). The mean K value for the 29-foot depth interval was 0.37 ft/day and the mean K of the 38-foot depth interval was 0.233 ft/day (BCRRT August 2009).

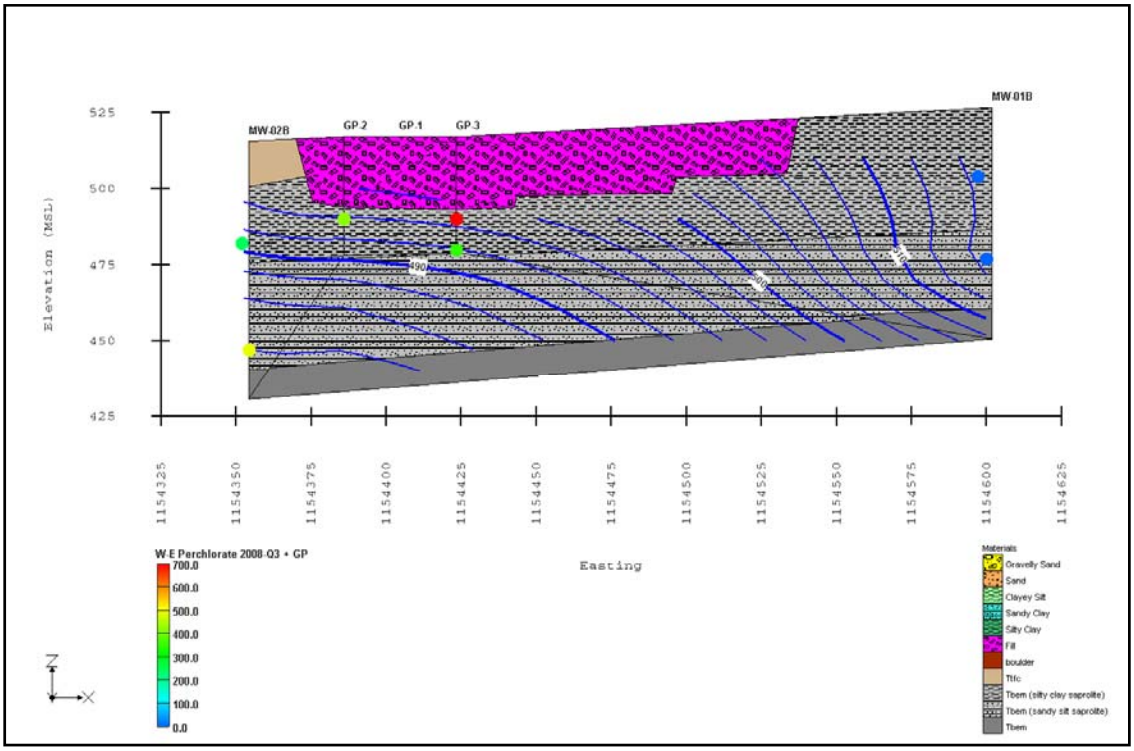


Figure 3.11– *South-to-North Cross-Section at LF4/DA1 - Perchlorate Concentrations (ug/L) in Groundwater and Elevation Contours (Interval = 2 ft.)*

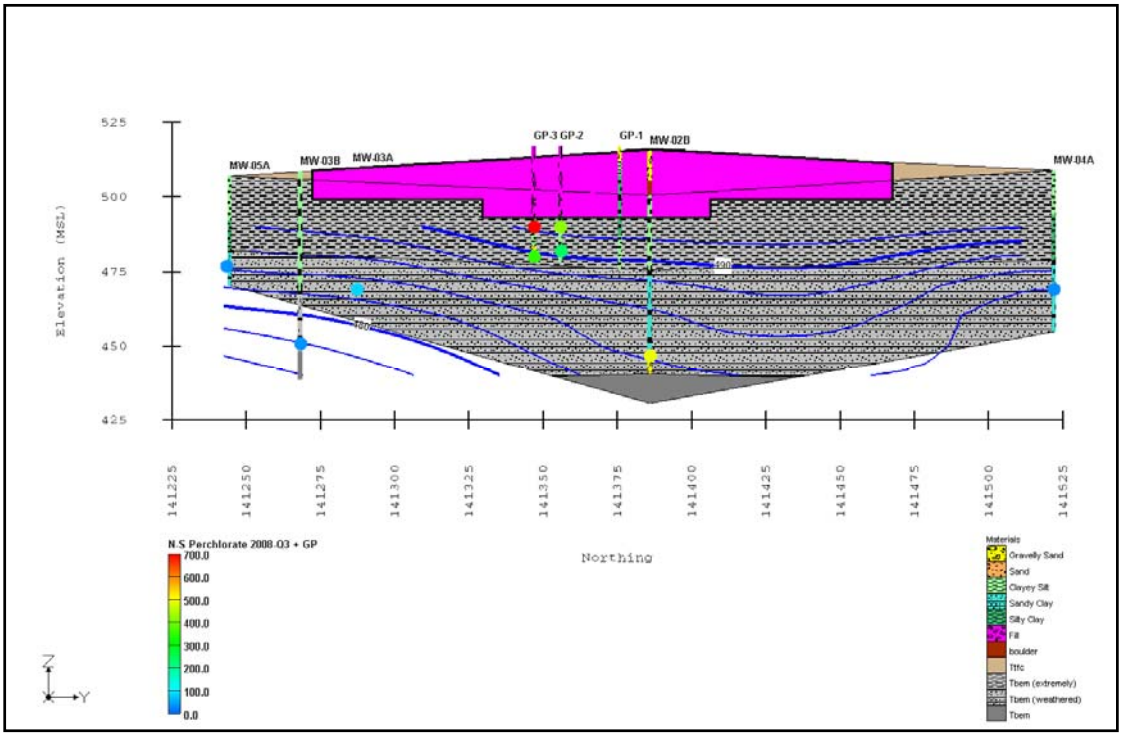


Figure 3.12 *– West-to-East Cross-Section at LF4/DA1 - Perchlorate Concentrations (ug/L) in Groundwater and Elevation Contours (Interval = 2 ft.)*

3.7.3.2 LF4/DA1Wells – Characteristics Derived from Groundwater Trends

The seasonal changes at L4-MW- 2A, 2B, and 3A, mounding at 1A, and the continued presence of mobile contaminants all support the observed hydrogeology conditions that the LF4/DA1 is acting in a manner analogous to a "bathtub". The "bathtub" is where water entering the area via infiltration becomes trapped because of the lower permeability "walls" and competent bedrock "floor" with no fast way out. The accumulated water causes mounding which slowly seeps out, taking dissolved contaminants with it.

- *The observed seasonal variations in the shallow wells reflect dilution rather than migration out of the area. The wet/Winter conditions dilute the LF4/DA1 concentrations as fresh water recharges into the area; then as groundwater adsorbs, evaporates, and seeps out, the concentrations increase to peak levels during the dry/Summer conditions.*

- *The recent 4th Quarter 2008 spike in perchlorate concentration at the upgradient L4-MW-1A is directly attributable to the heavy precipitation event prior to and during the sampling event. The influx of water into the system created a mounding effect that forced impacted groundwater upgradient. The creation of this mounding reflects the inability of groundwater to easily migrate out of the local system.*

- *The generally stable presence of very mobile constituents such as perchlorate, chlorinated solvents, and RDX in an environment that experiences significant rainfall, lacks an overlying confining layer, and has a long timeline since the placement/release of source material all indicate that the local conditions have to be retarding the migration of contaminants out of the LF4/DA1 area.*

Table 3-2
Perchlorate and RDX Maximum and Latest Detections by Well

COCs	***Perchlorate*[1]**		***RDX*[1]**	
Well	*Maximum*	*June '09*	*Maximum*	*June '09*
L4MW01A	***36***	*2.9*	*0.49*	*0.13*
L4MW01B	*1.2*	*1.1*	***0.92***	*ND*
L4MW02A	***280***	***195***	***40***	***19***
L4MW02B	***530***	***431***	***120***	***84***
L4MW03A	***120***	***83***	***13***	***9.4***
L4MW03B	***53***	***42***	***6.1***	***4.1***
L4MW04A	***40***	***34***	***2.8***	***2.8***
L4MW05A	***64***	***36***	***5.2***	***4.1***
L4MW07B	*3*[2]	*2.3*	*ND*	*ND*
L4MW017	*ND*	*ND*	*ND*	*ND*
L4MW018	*ND*	*ND*	*ND*	*ND*

[1] ***Bold*** *values exceeded MTCA Method A or B Cleanup Levels.*
[2] *Resampled value to correct a field cross-contamination result of 20 ppb that has not been repeated in the subsequent 8 quarterly sampling events.*

The Section 4.0 Conceptual Site Model/Risk Assessment concluded that:

> ***"4.3 Summary***
>
> *In order for there to be a risk, a complete environmental pathway by which chemicals may be transported to human or ecological receptors must exist. The only potentially complete pathways for constituents in groundwater moving away fromLF4/DA1 are:*
>
> 1) *Future groundwater receptor, in the event that existing or new on-site wells (deep/bedrock wells) are used as a potable water source in the Central Valley.*
>
> 2) *Surface water for human health receptors (recreational users/fishers) via Lacamas Creek.*
>
> 3) *Surface water for ecological receptors in Lacamas Creek.*

The Section 5.0 Cleanup Standards proposed the following point of compliance and cleanup levels:

"Table 5-2. Summary of Points of Compliance and Applicable Cleanup Levels.

	Landfill 4/Demolition Area 1			***Site-Wide Groundwater***
Point of Compliance:	*LF4MW 1A&B, LF4MW 2A&B, LF4MW 3A&B, LF4MW 4A, LF4MW 5A, and LF4MW 7B*	*Surface Water Monitoring Points*	*LF4MW 17 and LF4MW 18*	*LCMW 1A&B, LCMW 2A&B, LCMW 3A&B, and LCMW 4A&B*
MTCA Cleanup Level:	*Model/Risk Based Method C* [1]	*Modified Method B* [2]	*Method B*	*Method B*
Perchlorate	*1,300 ppb*	*600 ppb*	*11 ppb*	*11 ppb*
RDX	*95 ppb*	*59 ppb*	*0.8 ppb*	*0.8 ppb*

Notes:
[1] *Based upon the* ***Section 3.7.3.5*** *groundwater modeling and* ***Section 4*** *risk assessment criteria.*
[2] *Based upon the lowest cleanup level for Method B human health or ecologic receptors."*

3.0 GROUNDWATER SAMPLING

Baker conducted groundwater sampling for the 2nd Quarter 2009 events at 19 existing monitoring wells at the Sentinel Wells and LF4/DA1 Wells at CBMR (see **Figures 1.2, 3.5 and 3.8**). The sampling event was conducted from June 24 to June 29, 2009. All groundwater sampling was conducted in accordance with the procedures established in the previously approved Draft Supplemental Ground Water Remedial Investigation Work Plan (groundwater workplan/GWP; BCRRT November 2006, revised September 2007). The procedures detailed in the GWP include sample collection, sample labeling, chain-of-custody, field documentation, decontamination, and investigative-derived waste (IDW) handling. All on-site activities were performed in accordance with the CBMR Site Health and Safety Plan (HASP; BCRRT October 2006, revised August 2007)

Ecology approved modifications to the GWP included:

- Installation of dedicated bladder pumps in each of the wells on March 2008 (per the letter from Baker to Ecology, dated February 13, 2008).
- Reduction in the groundwater monitoring parameters based on historic sampling results (approved in a letter by Ecology, dated March 18, 2009):

    - VOCs via USEPA Method 8260B (without tentatively identified compounds/TICs)
    - Explosives including picric acid, nitroglycerin and PETN via USEPA Method 8330
    - Perchlorate via USEPA Method 314.1
    - Field Measurements of temperature, specific conductivity, dissolved oxygen, pH, oxidation reduction potential and water levels, via calibrated field instruments.

  The Sentinel Wells will also be sampled annually for priority pollutant metals, semi-volatile organic compounds (SVOCs), polynuclear aromatic compounds (PAHs), and pH.

3.1 Well Purging and Sampling

Groundwater was collected via low-flow/minimal-drawdown well sampling techniques during purging and sampling. All of the wells have dedicated Solinst bladder pumps installed. The pumps are constructed with a PVC body and a Teflon bladder that is actuated via a surface controller and air supply (compressor) that are transported between the wells. The low flow purging technique is described in detail in the GWP. Low-flow sampling minimizes disturbance to the aquifer and is designed to ensure that samples collected from the wells are representative of the aquifer (without undue agitation/sediment).

At the well identified as LF4-MW-17, purging was discontinued when well was pumped dry. The well was allowed to recharge and samples were collected approximately 2-3 hours after purging began.

3.2 Sample Collection

Samples were collected into the laboratory-supplied sample containers directly from the end of the dedicated discharge tubing. Appropriate sample preservative had been supplied in the containers by the laboratory. Sample containers for VOCs were filled completely to the top of the container with no headspace/bubbles, to prevent sample dilution due to volatilization.

Samples were stored in coolers with ice and maintained in secured field vehicles or field barracks prior to

daily shipment to the laboratory. Samples were maintained at 4°C during all phases of sample storage, prior to analytical testing.

Proper Chain-of-Custody (COC) documentation was maintained for all samples from the time of collection until the samples were shipped to the laboratory. COCs accompanied all of the samples and contained the following information: project number, sample numbers, number of containers, method(s) of preservation of samples, date and time of sample collection, analysis(es) requested, date and time of transportation to the laboratory, method of transportation, and any other information pertinent to the samples.

Samples were placed in appropriate shipping containers (i.e., coolers) and properly packaged to prevent damage to the samples. All samples were re-counted, the sample container labels checked against the field daily logbook and the COCs before each cooler was sealed. The completed COCs were sealed in plastic bags and placed in each cooler. Samples were picked up daily at the site by the analytical laboratory.

3.3 Quality Assurance/Quality Control Samples

As specified in the Ecology approved GWP, field QA/QC samples were collected for the purpose of assessing the quality of sampling and accuracy and precision of analyses. These QA/QC samples were submitted blind to the analytical laboratory. Field duplicate samples were collected at a frequency of 1 per 10 monitoring well samples. Matrix spike/matrix spike duplicate (MS/MSD) samples were collected at a frequency of 1 per 20 monitoring well samples. Trip blanks were submitted with each cooler that contained samples for VOC analysis.

The use of dedicated pumps in all of the wells eliminated the need for equipment rinsate or field blanks.

4.0 DATA MANAGEMENT/ QUALITY ASSESSMENT

All of the analytical data was received from the laboratory in an electronic data deliverable (EDD) format for importation into the CBMR databases. Laboratory and any validator qualifiers are included with the data sets. Complete copies of the laboratory data packages and validation reports are included electronically on the attached CD as **Appendix A**.

All analytical services were performed in accordance with the Ecology approved GWP. Site QA/QC procedures to ensure are fully detailed in the GWP and include:

- Internal and external audits as part of regulatory agencies laboratory monitoring;
- Following field and laboratory objectives for Precision, Completeness, Representativeness, and Comparability,
- Adhering to Sampling, Custody Procedures, and Final Evidence Files.
- Use of appropriate Field Instruments and Laboratory Instruments Calibration, Field Measurements and Laboratory Analytical Methods, field QA/QC samples, and Field and Laboratory Quality Control Checks,
- Field Performance and System Audits,
- Use of Instrument Preventative Maintenance protocols, and
- Timely Corrective Actions

BCRRT technical staff reviewed the analytical data and support documentation and determined that the data was usable. Trip blank samples submitted were non-detectable for VOCs. Field duplicate samples were within the relative percent differences (RPD) goals established in the GWP. A third party data validation was conducted for the explosives parameters analysis, in accordance with the GWP and USEPA methods.

The analytical tables include the appropriate State of Washington MTCA levels for comparison with regulatory and risk-based criteria. MTCA Method A and B Cleanup values and applicable, relevant and appropriate state and federal groundwater screening values were obtained from the Ecology CLARC database (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx). MTCA Method B-Modified and Method C Cleanup values were established in the Draft RI/FS for Site-Wide Groundwater (BCRRT August 2009) currently under review by Ecology.

4.1 Field Data Quality Assessment

While there are no specific data quality objectives for the measurement of field parameters (such as temperature, pH, ORP, conductivity, dissolved oxygen, and turbidity), stabilization was considered reached when three consecutive readings were within ±0.3 for pH, ±1 degrees C for temperature, ± 10 percent for specific conductance, ± 10mV for ORP, and ± 0.5 mg/L for DO. If five well volumes were purged from the subject well and stabilization had not been met, sampling occurred regardless of field parameter stabilization.

4.2 Quality Control Sample Assessment

Trip blanks accompanied the groundwater samples for VOC analysis that were consolidated daily into one cooler and shipped to the laboratory. Trip blanks were shipped on June 24, June 25, June

26 and June 29, 2009. All four trip blanks were analyzed for VOCs and none had compounds detected above the method detection limit.

One duplicate sample was collected from each of the study areas. The duplicate samples were analyzed for the same constituents as the source sample. The RPD was calculated as the difference between the values divided by the average of the values. A significant difference between duplicate values for a few parameters indicates potential problems with the precision of specific analyses. A significant difference for many parameters indicates potential problems with the sample-collection procedures.

Table 4-1
Duplicate Sample Results and Relative Percent Difference

Site Sample ID Sample Date/Time Units	23LCMW04SW 6/24/2009 ug/L	23LCMW0460W 6/24/2009 ug/L	Relative Percent Difference	23L4MW03BW 6/26/2009 ug/L	23L4MW460W 6/26/2009 ug/L	Relative Percent Difference
1,1,1-Trichloroethane	ND	ND	--	ND	ND	--
1,1-Dichloroethane	ND	ND	--	ND	ND	--
1,1-Dichloroethene	ND	ND	--	ND	ND	--
1,3,5-Trinitrobenzene	ND	ND	--	ND	ND	--
2,4-Dinitrotoluene	ND	ND	--	ND	ND	--
2-Nitrotoluene	ND	ND	--	ND	ND	--
Dichlorodifluoromethane	ND	ND	--	ND	ND	--
HMX	ND	ND	--	ND	0.029 J	--
Perchlorate	ND	ND	--	41.9	40.5	3.34
RDX	ND	ND	--	4.1	4.1	0.00
Toluene	ND	ND	--	ND	ND	--
Trichloroethene	ND	ND	--	ND	ND	--

The Sentinel well selected for blind field duplicate analysis was LCMW-04S; the field duplicate was identified as LCMW-0460. There were no detections in the sample or the associated field duplicate located at the Sentinel Wells at Lacamas Creek; therefore no values were calculated for RPDs. Another blind field duplicate was collected from L4MW-03B; the duplicate was identified as L4MW-460B. Perchlorate was detected at 41.9 and 40.5 ug/L, respectively. The comparison of the perchlorate results indicates a RPD of 3.34% well below the 20% threshold indicated in the GWP for an acceptable difference. RDX was also detected in the LF4 sample and associated field duplicate; both results were 4.1 ug/L; there is no difference in the RPDs.

4.3 Laboratory Analysis Chemical Data Quality

The method blanks for the explosives data set was determined to exhibit contamination for the constituent 1,3,5-trinitrobenzene. This contamination resulted in 80% of the samples reporting a false positive results for 1,3,5 trinitrobenzene. Baker decided to have an independent data validator review all of the explosives analysis to determine whether there was any data quality issues associated with this method blank contamination. The independent validator determined that these results should be reported as a non-detect at the method detection limit; no other qualifiers were required by the validator.

During the groundwater sampling event for the 2nd Quarter 2009, the deviations from standard procedures of the GWP included the use of dedicated pumps in each of the wells and elimination of equipment rinsate and field blanks.

5.0 GROUNDWATER MONITORING RESULTS

Soil boring/well construction logs, historic data results, well numbering, and construction details are included in the previous work plans and quarterly sampling reports (see **Section 7.0**). Water level depths and groundwater field parameters for pH, temperature, conductivity, ORP, dissolved oxygen, and turbidity for the 2nd Quarter/June 2009 sampling event are shown on **Table 5-1**:

Table 5-1- Summary of Field Parameters

Sample ID	Date	Depth to Water *ft below TOC**	Water Elevation *Feet msl*	Temperature *˚C*	Specific Conductivity *uS/cm*
23L4MW01AW	6/29/2009	16.74	514.66	10.18	29
23L4MW01BW	6/29/2009	13.52	516.05	10.34	25
23L4MW02AW	6/29/2009	35.5	484.43	11.17	33
23L4MW02BW	6/29/2009	53.62	464.84	10.85	73
23L4MW03AW	6/26/2009	30.17	484.68	11.7	23
23L4MW03BW	6/26/2009	27.51	483.96	11.32	48
23L4MW04AW	6/29/2009	28.23	483.56	10.19	17
23L4MW05AW	6/26/2009	24.58	485.33	10.64	27
23L4MW07BW	6/26/2009	40.2	440.6	9.94	33
23L4MW17W	6/24/2009	10.88	350.6	11.89	220
23L4MW18W	6/24/2009	11.77	351.07	11.48	121
23LCMW01SW	6/26/2009	5.72	284.435	11.13	85
23LCMW01DW	6/26/2009	6.01	284.242	12.02	88
23LCMW02SW	6/26/2009	6.51	284.676	11.25	86
23LCMW02DW	6/26/2009	6.86	284.731	11.76	91
23LCMW03SW	6/26/2009	5.76	285.15	10.98	85
23LCMW03DW	6/26/2009	5.82	285.16	12.02	93
23LCMW04SW	6/24/2009	5.56	286.067	12.92	9.2
23LCMW04DW	6/24/2009	6.21	285.579	10.89	100

Sample ID	Date	Dissolved Oxygen *mg/l*	pH *S.U.*	Oxydation Reduction Potential *Millivolts*	Turbidity *NTU*
23L4MW01AW	6/29/2009	5.2	5.09	269.1	0.41
23L4MW01BW	6/29/2009	3.9	5.21	279.3	0.44
23L4MW02AW	6/29/2009	3.1	4.8	337.9	0.22
23L4MW02BW	6/29/2009	0.9	5.69	58.6	0.22
23L4MW03AW	6/26/2009	7.3	5.67	252.1	0.39
23L4MW03BW	6/26/2009	7.49	5.93	237	3.43
23L4MW04AW	6/29/2009	2.8	4.95	297.4	1.21
23L4MW05AW	6/26/2009	7.16	5.57	247.2	0.68
23L4MW07BW	6/26/2009	7.28	5.59	237	0.11
23L4MW17W	6/24/2009	5.62	7.52	84.7	4.01
23L4MW18W	6/24/2009	7.02	6.32	140.2	2.72
23LCMW01SW	6/26/2009	7.78	6.79	158.9	0.28
23LCMW01DW	6/26/2009	7.81	6.87	149.6	0.36
23LCMW02SW	6/26/2009	7.98	7.05	141.5	0.4
23LCMW02DW	6/26/2009	7.92	7	134.6	0.55
23LCMW03SW	6/26/2009	8.21	6.81	121.8	0.42
23LCMW03DW	6/26/2009	8.16	6.87	153.7	0.35
23LCMW04SW	6/24/2009	8.52	6.7	174.5	0.51
23LCMW04DW	6/24/2009	8.47	6.66	90.5	0.64

ft below TOC – Feet below top of casing
ft msl – feet to mean sea level
°C – degrees Celsius
uS/cm – microSiemens per centimeter
mg/L – milligram per liter/part per million
s.u. – standard unit
ntu - nephelometric turbidity units

5.1 Sentinel Wells

Groundwater samples were collected on June 24th and 25th, 2009 from the Sentinel Wells, which consist of four monitoring well pairs located at along the southwestern corner of CBMT where Lacamas Creek exits the site (see **Figures 1.2 and 3.5**). A field duplicate sample (labeled LCMW460W) was collected from Monitoring Well LCMW04S. Extra volume of groundwater was collected from Monitoring Well LCMW03B for the purpose of supplying extra water for laboratory MS/MSD samples. Trip blanks accompanied all groundwater VOC sample containers.

VOCs, explosive compounds, RDX, HMX, nitroglycerine, PETN, and picric acid were not detected in any of the Sentinel Wells groundwater samples; see **Table 5-2** below:

Table 5-2
Summary of Sentinel Well Groundwater Sample Results

Site Sample ID **Sample Date/Time** **Units**	23LCMW01DW 6/25/2009 ug/L	23LCMW01SW 6/25/2009 ug/L	23LCMW02DW 6/25/2009 ug/L	23LCMW02SW 6/25/2009 ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
HMX	ND	ND	ND	ND
Perchlorate	ND	ND	ND	ND
RDX	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

Site Sample ID **Sample Date/Time** **Units**	23LCMW03DW 6/24/2009 ug/L	23LCMW03SW 6/25/2009 ug/L	23LCMW04DW 6/24/209 ug/L	23LCMW04SW 6/24/2009 ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
HMX	ND	ND	ND	ND
Perchlorate	ND	ND	ND	ND
RDX	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

ug/L – microgram per liter/part per billion
ND – Non-detectable

5.2 Landfill 4/Demolition Area 1

Quarterly groundwater samples have been collected from eleven wells associated with LF4/DA1 (see **Figures 1.2 and 3.8**) since 2001, except between April 2002 and December 2003. Eight of those wells surround the former landfill area (LF4-MW01A&B, LF4-MW02A&B, LF4-MW03A&B, LF4-MW04A, and LF4-MW05A), with one located down/side gradient to the south (LF4-MW07B) and two wells (LF4-MW17 and LF4-MW18) located where the North Fork of Lacamas Creek enters the alluvial deposits in the valley (part of the Troutdale Sole Source Aquifer).

Naturally occurring levels of inorganic elements (metals) were observed in the parts per billion ranges in all of the wells (Ecology 1994). Historically the highest observed concentrations were generally associated with samples that had a high level of suspended solids in them. The comparable filtered sample for many of the metals have displayed lower concentrations, indicating the elevated reading was the result of the acid preservative dissolving materials from the soil particles suspended in the sample. In June 2005 the total mercury concentration in well L4MW03A (5.6 ug/L) exceeded the MTCA Method A criteria (2 ug/L). The associated dissolved mercury analysis (0.09 ug/L) was well below MTCA Method A criteria. All previous and subsequent mercury analyses from this well have been at non-detect levels (that are below the MTCA criteria). A significant fraction of the other site-wide wells also had laboratory reported mercury detections (all below MTCA criteria) in this single sampling event (LFMW1B, 2A, 2B, 4B, 4A, 7B, 17 18; MW3S, 3D, 4S, 4D). This pattern is interpreted to be a laboratory error or laboratory equipment contamination.

No other metals (total or dissolved) from RAU 2C have exceeded the MTCA Method A or Method B criteria. Ecology approved the removal of metals from the routine monitoring parameters at LF4/DA1 in 2006.

Groundwater samples were collected from the LF4/DA1 monitoring wells (see **Figures 1.2 and 3.8**) on June 25th, 26th, and 29th, 2009. A field duplicate sample (labeled L4MW460W) was collected from Monitoring Well L4MW03B. Trip blanks accompanied all groundwater VOC sample containers.

PETN, picric acid, and nitroglycerin, were not detected in any of the groundwater samples from shallow or deep monitoring wells. HMX and RDX were not detected in Monitoring Wells L4MW17, L4MW18, L4MW01B, and L4MW07B. HMX and RDX were both detected in monitoring wells L4MW02A, L4MW02B, L4MW03A, and L4MW05A. RDX only was detected in monitoring wells L4MW01A, L4MW03B, and L4MW04A.

Perchlorate was detected in groundwater samples from all the LF4/DA1wells except L4MW17 and L4MW18. The concentrations range from 1.1 µg/L at L4MW01B to 431µg/L at L4MW02B. The highest levels of HMX, RDX, and perchlorate were found in the groundwater samples from the paired monitoring wells MW02A and MW02B.

VOCs detected at well L4MW02B included 1,1-dichloroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, 2,4-dinitrotoluene, and dichlorodifluoromethane, although below applicable MTCA Method B cleanup values. VOCs were not detected in any of the other monitoring wells; see **Table 5-3** below:

Complete copies of the laboratory data packages and validation reports are included electronically on the attached CD as **Appendix A**.

Table 5-3
Summary of LF4/DA1Well Groundwater Sample Results

Site Sample ID	23L4MW01AW	23L4MW01BW	23L4MW02AW	23L4MW02BW
Sample Date/Time	6/29/2009	6/29/2009	6/29/2009	6/29/2009
Units	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	ND	19
1,1-Dichloroethane	ND	ND	ND	19.2
1,1-Dichloroethene	ND	ND	ND	6.15
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	0.36 J
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	23.9
HMX	ND	ND	3.8 J	4.3 J
Perchlorate	2.9	1.1	195	431
RDX	0.13	ND	19 J	84 J
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

Site Sample ID	23L4MW03AW	23L4MW03BW	23L4MW04AW	23LF4MW5A
Sample Date/Time	6/26/2009	6/26/2009	6/29/2009	6/26/2009
Units	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
HMX	0.38	ND	ND	0.25 J
Perchlorate	82.6	41.9	34.2	35.9
RDX	9.4	4.1	2.8 J	4.1 J
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

Site Sample ID	23LF4MW7B	23LF4MW17SW	23LF4MW18SW
Sample Date/Time	6/26/2009	6/25/2009	6/25/2009
Units	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND
2-Nitrotoluene	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND
HMX	ND	ND	ND
Perchlorate	2.3	ND	ND
RDX	ND	ND	ND
Toluene	ND	ND	ND
Trichloroethene	ND	ND	ND

ug/L – microgram per liter/part per billion J – estimated value
ND – Non-detectable

6.0 GROUNDWATER QUALITY TRENDS

6.1 Sentinel Wells

The Sentinel Well groundwater result trends are as follows:

- With the use of dedicated pumps and low flow purging/sampling techniques (which obtain water samples with lower turbidity), the total and dissolved metals concentrations have decreased significantly. All of the total and dissolved metals detections in groundwater from these wells were below MTCA Method A and B regulatory screening levels.

- Petroleum hydrocarbons have not been detected in any of the Sentinel Wells throughout the monitoring, except for an isolated detection of diesel range petroleum hydrocarbons in LCMW02DW at 0.15 mg/L in January 2006.

- Perchlorate and explosive constituents have not been detected above the laboratory detection limits at the Sentinel Wells, following data validation and data quality assessments.

6.2 LF4/DA1Wells – Data Trends

Based on our recent review of historic groundwater data, the following observations summarize groundwater conditions at and around the LF4/DA1 site; detections are shown graphically for each well in **Appendix B**.

- All of the VOCs detected (primarily at LF4-MW-2B) continue to be well below MTCA Method A and B Cleanup Levels (see **Table 6-1**). Concentrations of 1,1-dichloroethene, 1,1- dichloroethane and 1,1,1-trichloroethane have been decreasing slowly and dichlorodifluoromethane, 1,2-dichloroethane, tetrachloroethene and trichloroethene results have been non-detectable for the last year.

- HMX and RDX concentrations in groundwater have been either stable, below MTCA levels, or decreasing slowly with consistent concentration distributions throughout all of the 27 LF4/DA1 groundwater sampling events (2001 to 2009; see **Figure 6.1**).

- Well LF4-MW-1A – the shallow upgradient well perchlorate concentrations have decreased to previous levels (ranging from 1.6 to 7 µg/L) from the 36 µg/L detected in 4th Quarter 2008 during and following a heavy precipitation event and correlate with RDX variations (see **Figure 6.2)**.

- Well LF4-MW-1B – the deep upgradient well has low perchlorate concentrations; the adjacent shallow well LF-MW-1A has a history of low perchlorate and RDX concentrations. Since this well is located upgradient of the LF4/DA1, neither the detection nor absence of perchlorate at this well affects the monitoring program.

- Well LF-MW-2A – perchlorate concentrations appear to have reached a degree of equilibrium since 2005 with a consistent concentrations of perchlorate, RDX and HMX, which are all clearly affected by seasonal changes in recharge (see **Figure 6.3**). The seasonal variation appears to be inversely correlated with increased precipitation/groundwater elevations:

    - The lowest reported perchlorate concentrations, the highest measured groundwater levels and the lowest reported precipitation totals have generally occurred in the first quarter (Winter) events each year.

    - The highest reported perchlorate concentrations, the lowest measured groundwater levels, and the highest reported precipitation totals usually occurred in the third quarter (Summer) events of each year.

- L4MW2B perchlorate levels follow a stable, quasi-seasonal pattern. The 1st and 2nd Quarters in 2009 show the beginning of the downward portion of this pattern. The clearly seasonal perchlorate/RDX/HMX concentration patterns observed in L4-MW-2A are not repeated in the LF-MW-2B data (see **Figure 6.4**).

- Well L4-MW-3A - perchlorate concentrations have remained relatively stable with a slightly decreasing trend since a peak concentration of 120 µg/L occurred during the 3rd quarter 2006 sampling event. RDX concentrations are stable at about 10 ug/L.

- Well L4-MW-3B - perchlorate concentrations have remained relatively stable with an overall decreasing trend since a peak concentration (55 µg/L) was observed in the 3rd and 4th quarter 2006 sampling events. RDX concentrations are stable at 5 ug/L.

- Well L4-MW-4A - perchlorate concentrations have remained relatively stable (29 to 34 µg/L) since a peak concentration (40 µg/L) was observed in the 4th quarter 2006 and 2nd quarter 2007 sampling events. The common laboratory contaminant, methylene chloride that was detected (0.14 ppb) in the 2nd Quarter 2008 sample, has not been detected in later events.

- Well L4-MW-5A - perchlorate concentrations have been generally decreasing from a peak of 64 ppb in the initial sampling event in the 3rd quarter 2001 to less than 40 ppb during the last 7 quarters. The trace detections of tetrachloroethene have been non-detectable for the last 3 quarters. RDX concentrations have been consistently less than 5 ug/L.

- Well L4-MW-7B - perchlorate concentrations have been generally stable at 2 to 3 ppb for the last 20 quarterly sampling events; with the exception of an apparent field cross contamination issue during the 1st quarter 2006 event.

- Well L4-MW-17 – the 2nd Quarter 2008 estimated (above the MDL but below the MRL) concentrations of 1,2,4-Trimethylbenzene and Naphthalene (0.12 and 0.35 µg/L, respectively) have not been detected in subsequent events.

- Well L4-MW-17 and 18 – the monitoring wells located at the beginning of the Central Valley Floor were non-detectable for perchlorate throughout the 20 sampling events

Table 6-1
Summary of Maximum Groundwater Monitoring Detections vs MCTA Cleanup Levels

	Concentration (ppb/µg/L)		**MTCA Cleanup Level Groundwater (ppb/µg/L)**	
Contaminant	**Maximum Dectection** (1)	**Well ID**	Method A	Method B
HMX	4.6	L4MW02A		400
RDX	**120**	**L4MW02B**		**0.8**
Perchlorate	**530**			**11**
Picric Acid	2.9	L4MW02B	(2)	
Nitroglycerine	8.4		(2)	
1,1-Dichloroethene	36			400
1,1- Dichloroethane	45			1600
1,1,1-Trichloroethane	>200 in '03 >50 in '07		200	
1,2-Dichloroethane	1.58	L4MW02B	5 (2)	
2,4-Dinitrotoluene	0.36		(2)	32
Isopropylbenzene	0.2		(2)	
Methylene Chloride	2.58		5 (2)	
n-Propylbenzene	0.2		(2)	48
Tetrachloroethene	1.1		5	
Trichloroethene	0.26		5 (2)	
Trichlorofluoromethane	0.22		5 (2)	2,400
Dichlorodifluoromethane	190			1,600
1,3,5 Trinitrobenzene	0.13	L4MW01A		43,000
Naphthalene	0.35	L4MW17	160 (2)	

(1) **Bold** values exceeded MTCA A or B Cleanup Levels.
(2) Not retained due to low frequency detection (one or two times out of > 250 samples).

The quarterly sample results continue to be less than the Applicable Cleanup Levels as presented in the Draft RI/FS for Site-Wide Groundwater (RAU2C/BCRRT August 2009) currently under review by Ecology.

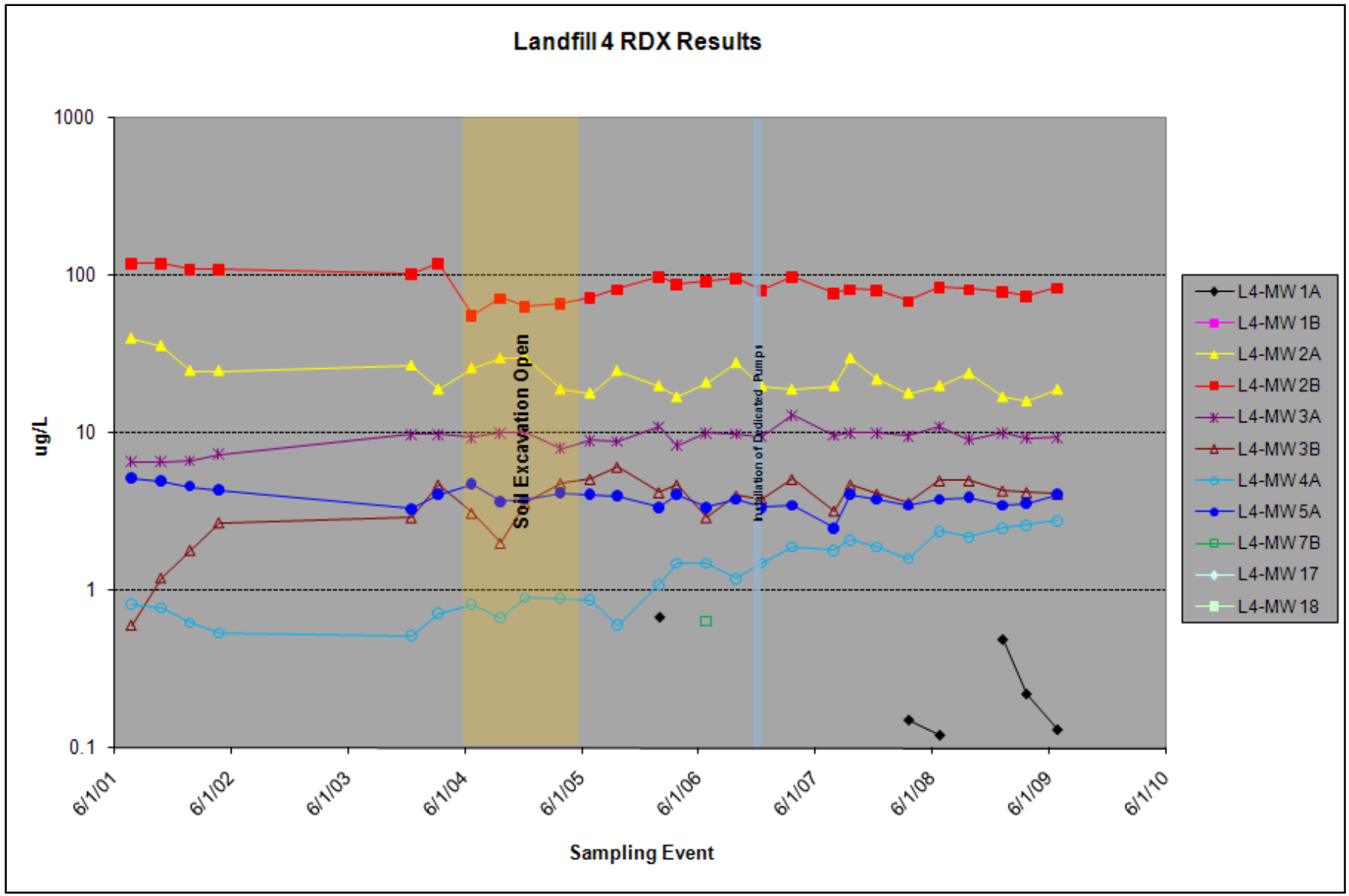


Figure 6.1 LF4/DA1 Groundwater Monitoring RDX Results

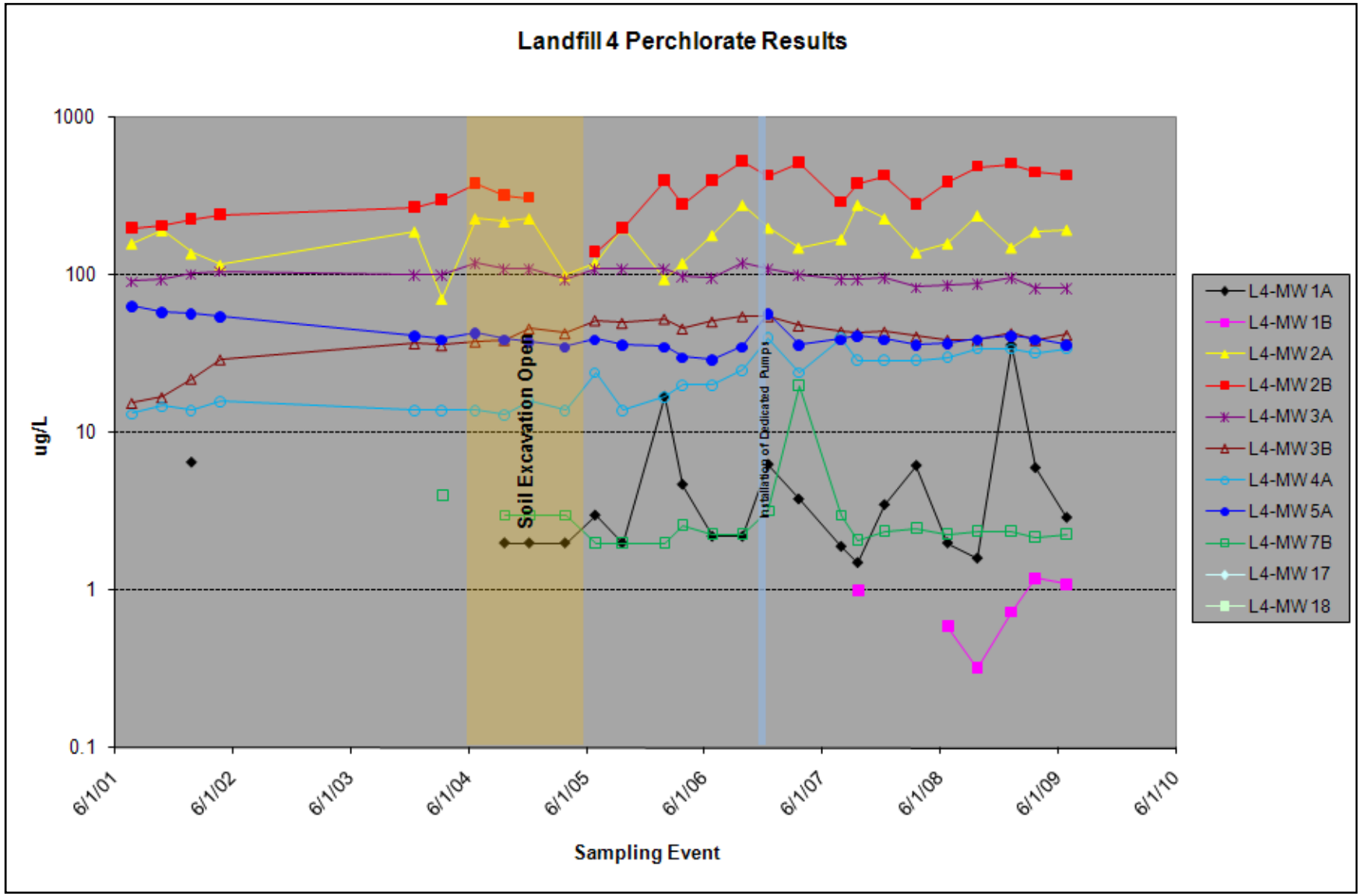


Figure 6.2 LF4/DA1 Groundwater Monitoring Perchlorate Results

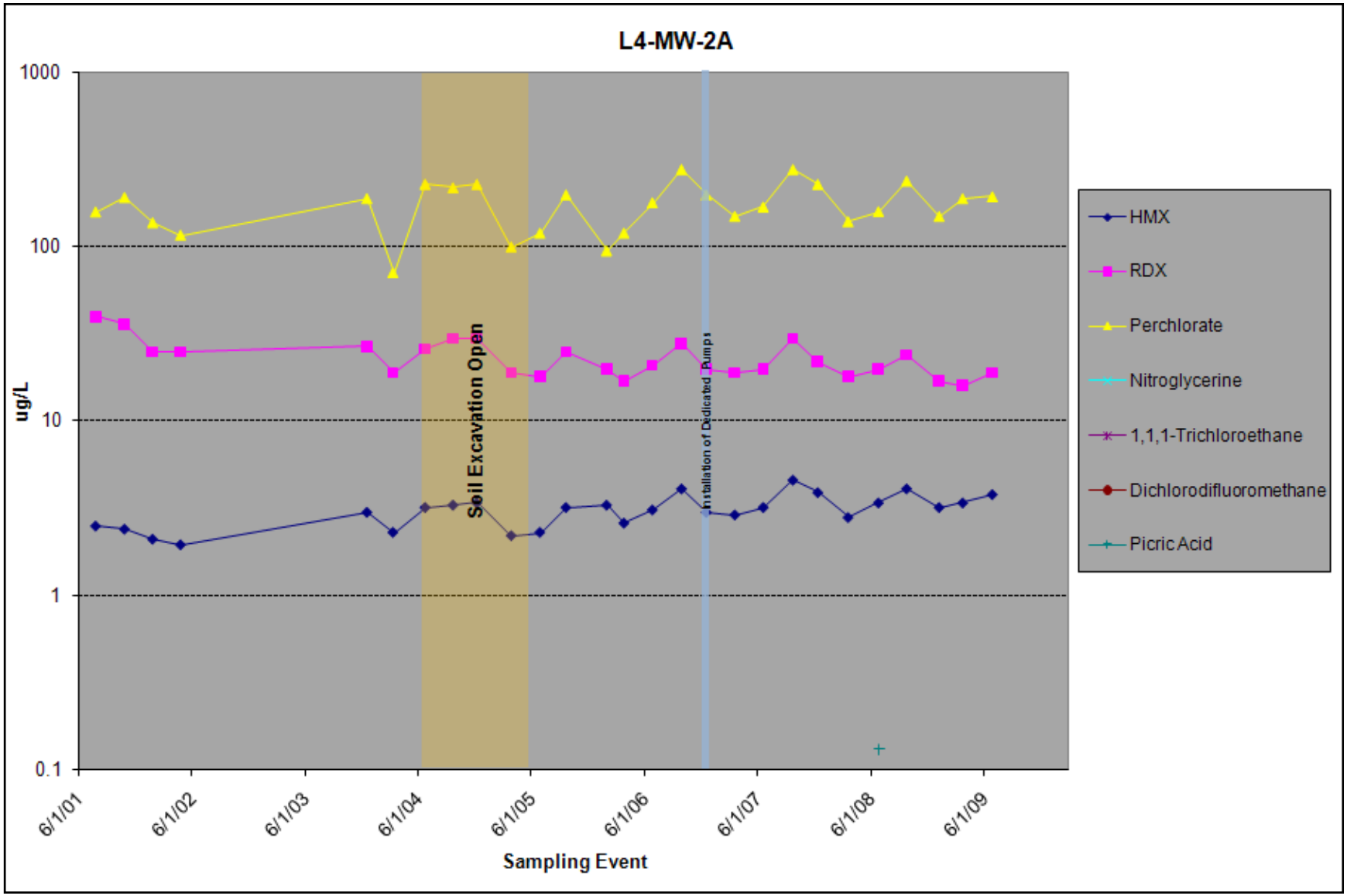


Figure 7.3 LF4/DA1 Perchlorate Results, Groundwater Elevation, and Precipitation - LF4-MW-2A

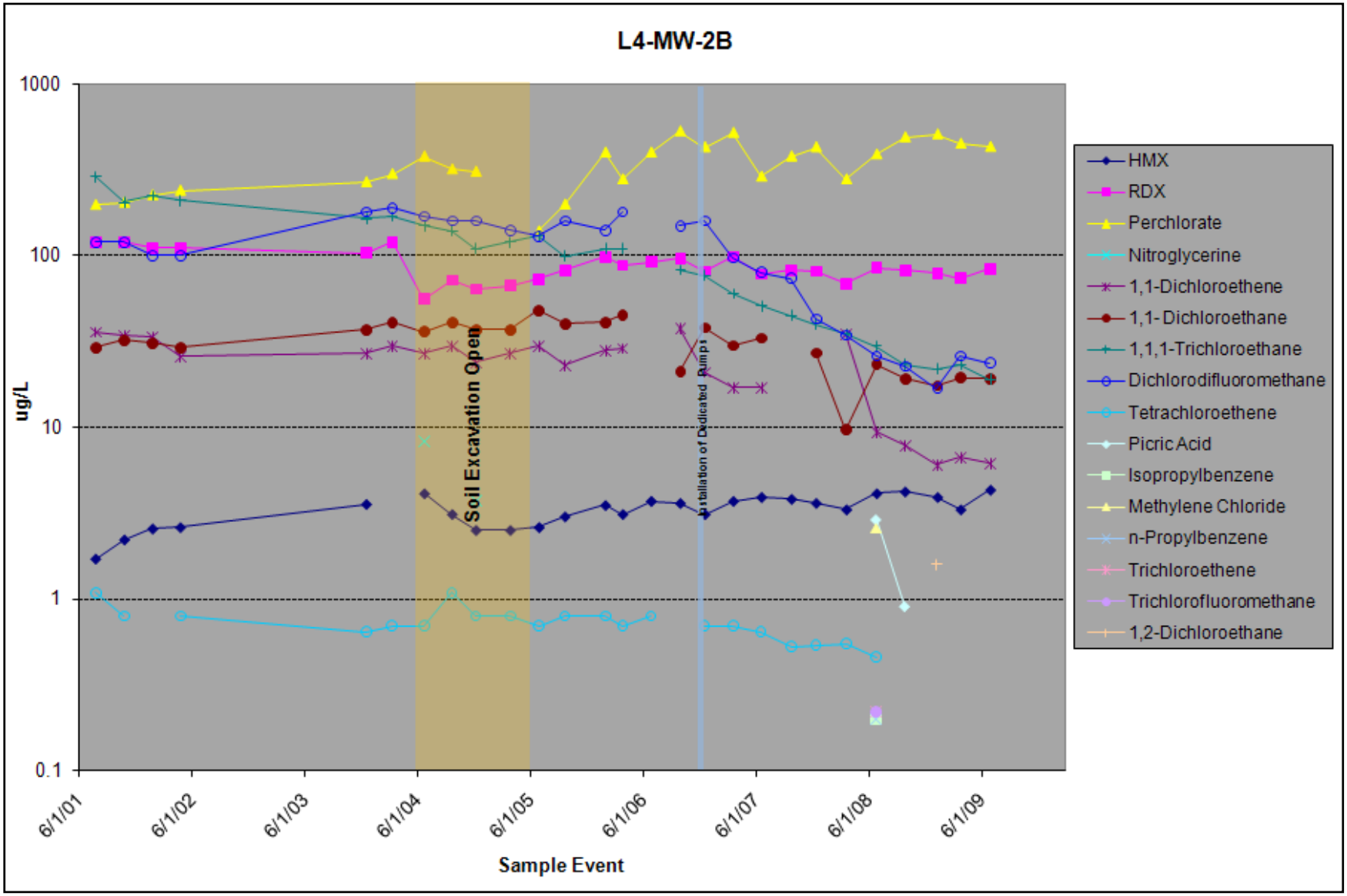


Figure 6.4 LF4/DA1 Perchlorate Results, Groundwater Elevation, and Precipitation - LF4-MW-2B

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Data Validation Report

Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0784

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Data Validation Report

SDG#	PSF0784
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Date Sampled	Location	Portland ID	Sacramento ID	Explosives	Matrix
06/24/09	23LCMW04DW	PSF0784-01	LFQAK	X	Aqueous
06/24/09	23LCMW04SW	PSF0784-02	LFQAL	X	Aqueous
06/24/09	23LCMW0460W	PSF0784-03	LFQAM	X	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

SUMMARY

The sample set for the Camp Bonneville site consists of three aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

* • Data Completeness
* • Holding Times
* • Calibration (Initial and Continuing)
• Blanks
* • System Monitoring Compounds (Surrogate Spikes)
* • Matrix Spike/Matrix Spike Duplicates
* • Laboratory Control Standard Results
* • Target Compound Identification
* • Compound Quantification and Reported Contract Quantitation Limits
* • System Performance

* Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

FINDINGS

1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum Concentration (ppb)	Action Limit (ppm)	Action
LFW791	1,3,5-Trinitrobenzene	0.038	0.19	U sample results < RL

RL - reporting limit

NOTES

Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

Laboratory Control Sample Results

Recovery of 12 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

Field Duplicate Results

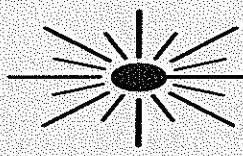
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer

8/17/09
Date

Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



ECT.CON INC.

Environmental and Computer
Technology Consultants

Annotated Form 1's
(Spreadsheet)

TestAmerica Portland

Client Sample ID: PSF0784-01

HPLC 23LCMW049W

Lot-Sample #...: G9F260326-001 Work Order #...: LFQAK1AC Matrix.....: WATER
Date Sampled...: 06/24/09 Date Received..: 06/26/09
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.036 J,B~~	0.10	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WT 8/6/09

TestAmerica Portland

Client Sample ID: PSF0784-02

HPLC 23LCM048W

Lot-Sample #...: G9F260326-002 Work Order #...: LFQAL1AC Matrix.....: WATER
Date Sampled...: 06/24/09 Date Received..: 06/26/09
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.033 J,B~~	**0.10** U	ug/L	**0.031**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	105	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

WG 8/6/09

TestAmerica Portland

Client Sample ID: PSF0784-03

28LCM W0460W

HPLC

Lot-Sample #...: G9F260326-003 Work Order #...: LFQAM1AC Matrix.....: WATER
Date Sampled...: 06/24/09 Date Received..: 06/26/09
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 0.99 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.99	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.099
4-Amino-2,6-dinitrotoluene	ND	0.099	ug/L	0.022
1,3-Dinitrobenzene	ND	0.099	ug/L	0.050
2,4-Dinitrotoluene	ND	0.099	ug/L	0.050
2,6-Dinitrotoluene	ND	0.099	ug/L	0.050
HMX	ND	0.099	ug/L	0.027
Nitrobenzene	ND	0.099	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.071
3-Nitrotoluene	ND	0.40	ug/L	0.061
4-Nitrotoluene	ND	0.50	ug/L	0.071
RDX	ND	0.099	ug/L	0.064
Tetryl	ND	0.099	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.035 J,B~~	**0.099**	**ug/L**	**0.031**
2,4,6-Trinitrotoluene	ND	0.099	ug/L	0.024

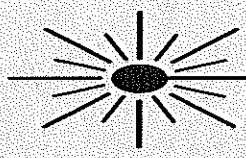
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WK 8/6/09



ECT.CON INC.

Environmental and Computer
Technology Consultants

Support Documentation

Laboratory Case Narrative

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc.
James D. Peyton
5261 Fountain Drive, Suite A
Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater
Client Project Number: 110002 Task 6200

TA Work Order#: PSF0784

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

139

July 31, 2009

→ Tabs between columns for sample results
→ field dups

TestAmerica - Portland
9405 S. W. Nimbus Avenue
Beaverton, Oregon 97008
(503) 906-9200
(503) 906-9210

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Michael Baker Jr., Inc.	**Date Sampled:**	6/24/2009
Project:	Camp Bonneville Groundwater 110002 Task 6200	**Date Received:**	6/24/2009
Lab:	PSF0784		

SAMPLE RECEIPT: Samples were received intact, on ice, with chain of custody documentation. The sample temperature was measured at 4.6 °C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered.

QA/QC CRITERIA: 1,2,3-Trichlorobenzene was detected at a concentration less than the MRL but greater than one-half of the MRL in the associated Method Blank for EPA 8260B samples PSF0784-01, PSF0784-02, PSF0784-03, and PSF0784-04.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: 314.0_9196313 (Perchlorate) and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben

Estella Rieben
Project Manager

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 (503) 906-9210

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23LCMW04DW	PSF0784-01	Water	06/24/09 13:00	06/24/09 17:30
23LCMW04SW	PSF0784-02	Water	06/24/09 15:45	06/24/09 17:30
23LCMW0460W	PSF0784-03	Water	06/24/09 11:00	06/24/09 17:30
TB261	PSF0784-04	Water	06/24/09 00:00	06/24/09 17:30

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

July 28, 2009

TestAmerica Project Number: G9F260326
PO/Contract: PSF0784

Estella Rieben
TestAmerica Portland
Nimbus Corporate Center
9405 SW Nimbus Ave
Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on June 26, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver

Linda C. Laver
Project Manager

Case Narrative

TestAmerica West Sacramento Project Number G9F260326

WATER, 8330, Nitroaromatics & Nitramines
Samples: 1, 2, 3
The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for most analytes above the established control limits indicating a potential high bias in the data. These samples do not have detected concentrations above the reporting limit for these analytes and there is no adverse impact upon the data.

The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch also has recoveries and/or precision is outside the established control limits for many analytes. This anomaly is most likely matrix related.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G9F260326

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LFQAK	1	PSF0784-01	6/24/2009 01:00 PM	6/26/2009 09:00 AM
LFQAL	2	PSF0784-02	6/24/2009 03:45 PM	6/26/2009 09:00 AM
LFQAM	3	PSF0784-03	6/24/2009 11:00 AM	6/26/2009 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #: PSF0784

CLIENT: Michael Baker Jr., Inc

REPORT TO: Margaret James

ADDRESS: 320 Park Ave ID: Suite A
Crown Point, IN 46307

PHONE: 219-663-1460 FAX: 219-663-1533

INVOICE TO: Baker

P.O. NUMBER: 110CC02 T WOCC

PROJECT NAME: Camp Bonneville

PROJECT NUMBER: 110CC02 T WOCC

SAMPLED BY: Margaret James

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 | 4 | 3 | 2 | 1 | <1

OTHER Specify

* Turnaround Requests less than standard may incur Rush Charges

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE: HCL	N/A	N/A	REQUESTED ANALYSES: VOCs 8260B	Explosives 8330	Perchlorate 314.1	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 23LCMW04DW	6/24/09 - 13:00	X	X	X				W	6	NO TICs	
2 23LCMW04SW	6/24/09 - 1345	X	X	X				W	6	↓	
3 23LCMW04600W	6/24/09 - 1100	X	X	X				W	6	↓	
4 TD261	NA	X									
5											
6											
7											
8											
9											
10											

RELEASED BY:	[signature]	DATE: 6/24/09	RECEIVED BY:	[signature]		DATE: 6/24/09
PRINT NAME: Margaret James	FIRM: Baker	TIME: 1609	PRINT NAME: Bob K	FIRM: TAL		TIME: 16:15
RELEASED BY: [signature]		DATE: 6/24/09	RECEIVED BY: [signature]			DATE: 6/24/09
PRINT NAME: Bob K	FIRM: TAL	TIME: 17:30	PRINT NAME: Peggy Siegfried	FIRM: TAL		TIME: 1730

ADDITIONAL REMARKS:

TEMP: 4.0 PAGE OF

TAL-10000408

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0784 Date/Time Received: 6/24/09 1730

Client Name and Project: Michael Baker Camp Bonneville

Time Zone:

☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): _____ _____ _____ _____ _____

Temperatures: _____ _____ _____ _____ _____

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☒Plastic ☐Glass)

Temperature out of Range:

__Not enough or No Ice

__Ice Melted

__W/in 4 Hrs of collection

__Other: _____

Initials: PS

N/A	Yes	No	
☑	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☑	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☑	☐	3. Chain of Custody present? If no, document on NOD.
	☑	☐	4. Bottles received intact? If no, document on NOD.
	☑	☐	5. Sample is not multiphasic? If no, document on NOD.
	☑	☐	6. Proper Container and preservatives used? If no, document on NOD.
☑	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☑	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☑	☐	☐	9. HF Dilution required?
	☑	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☑	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☑	☐	12. Is the "Sampled by" section of the COC completed?
☐	☑	☐	13. Were VOA/Oil Syringe samples without headspace?
☐	☑	☐	14. Were VOA vials preserved? ☑HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☑	15. Did samples require preservation with sodium thiosulfate?
☑	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☑	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☑	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☑	☐	☐	19. Are analyses with short holding times received in hold?
	☑	☐	20. Was Standard Turn Around (TAT) requested?
	☑	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0784

Login Checks: Initials: PS

N/A	Yes	No	
	☒	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☒	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☒	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☒	☐	☐	25. Were special log in instructions read and followed?
	☒	☐	26. Were tests logged checked against the COC?
☒	☐	☐	27. Were rush notices printed and delivered?
☒	☐	☐	28. Were short hold notices printed and delivered?
☐	☒	☐	29. Were subcontract COCs printed?
☒	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks: Initials: PS

N/A	Yes	No	
☒	☐	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☒	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☒	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☒	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☒	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☒	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

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LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL - Portland PM LL LOG # 59227

LOT# (QUANTIMS ID) G9F260326 QUOTE# 83365 LOCATION W15B

		Initials	Date
DATE RECEIVED 6/26/09	TIME RECEIVED 0900	LV	6/26/09

DELIVERED BY
- [x] FEDEX
- [ ] CA OVERNIGHT
- [ ] CLIENT
- [ ] AIRBORNE
- [ ] GOLDENSTATE
- [ ] DHL
- [ ] UPS
- [ ] BAX GLOBAL
- [ ] GO-GETTERS
- [ ] TAL COURIER
- [ ] VALLEY LOGISTICS
- [ ] MORGAN HILL COURIER
- [ ] OTHER

CUSTODY SEAL STATUS [x] INTACT [ ] BROKEN [ ] N/A

CUSTODY SEAL #(S) 204255

SHIPPPING CONTAINER(S) [x] TAL [ ] CLIENT [ ] N/A

TEMPERTURE RECORD (IN °C) IR 4 [ ] 5 [x] [ ] OTHER

COC #(S) NO

TEMPERATURE BLANK Observed: ↓ Corrected:

SAMPLE TEMPERATURE
Observed: 5 5 6 Average: 5 Corrected Average: 5

COLLECTOR'S NAME: [ ] Verified from COC [x] Not on COC

pH MEASURED [ ] YES [ ] ANOMALY [x] N/A

LABELED BY.

LABELS CHECKED BY...

PEER REVIEW [x] NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
WETCHEM [x] N/A
VOA-ENCORES [x] N/A

[ ] METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL [x] N/A

[x] COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES [ ] N/A

[ ] CLOUSEAU [ ] TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 [x] N/A

[ ] WET ICE [ ] BLUE ICE [ ] GEL PACK [ ] NO COOLING AGENTS USED [ ] PM NOTIFIED

Notes:

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

Worksheets

HOLDING TIMES

SAMPLE DATE	SAMPLE ID	Portland LAB ID	Sacramento Lab ID	Matrix	Prep	Anal
06/24/09	23LCMW04DW	PSF0784-01	LFQAK	Aq	07/01/09	7/2/09 1X
06/24/09	23LCMW04SW	PSF0784-02	LFQAL	Aq	07/01/09	7/2/09 1X
06/24/09	23LCMW0460W	PSF0784-03	LFQAM	Aq	07/01/09	7/2/09 1X

7	days from collection to extraction		
Sample Date	6/24/2009	Extract By	7/1/2009
40	days fromextraction to analysis		
Sample Date	7/1/2009	Extract By	8/10/2009

TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client?	No
Did Sample Form 1s match the target compound list	NA
Were required quantitation limits provided by the client?	No
Did all compounds meet the required quantitation limits?	NA

SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN 1		DF	ACTION
All IN					

Were surrogate RTs within windows established by the ICAL?	Yes
Were there any transcription errors between the raw data and Form 2?	No
Were laboratory acceptance limits used as the basis for validation?	30-150
Did the laboratory provide CLP Form II or equivlaent?	Yes

04DW

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	F1
34-DNT A	2.607	2.5	104.3	104
34-DNT C	NA		#VALUE!	

MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

Non-Client

LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LFW791	12 of 17 HI		NA	NA	none, ND

Were laboratory acceptance limits used as the basis for validation?	Yes
Did the laboratory provide CLP Form III or equivlaent?	Yes
Were chromatograms and quan reports present for all LCS/LCDs?	Yes

LFW791 RDX

12 of 17 HI	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	1.27	1	127.0	127

%R = (Amount Found/Amount Spiked)*100

BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION	
LFW791	135-TNBENZ	0.038	5	0.19	U at RL	ALL

NOTE Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

CALIBRATION

Initial

Are chromatograms and quan reports present for all ICAL standards?	Yes
Are CLP For VIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What linearity criteria was used?	20% RSD or 0.99
Were RT window documented?	Yes

Continuing

Are chromatograms and quan reports present for all CCV standards?	Yes
Are CLP Form VIIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What %D criteria was used?	25% D
Have all samples and standards been listed on an Analytical Sequence?	Yes
Was a proper analytical sequence followed?	Yes

INITIAL CALIBRATION - A

Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5.156
Instrument	A	Caled Avg CF	77.892	Cald %RSD	5.156
Compound	RDX				
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/Avg CF)*100	
		CF8	79.815		

CONTINUING CALIBRATION A

Date	7/2/2009		
Time	1709		
Instrument	A		
Compound	HMX		
Reported Conc	104.5	Rptd %D	5
Calculated Conc	210.182	Cald %D	-5.09
Response	25432	ICAL CF	200
CF	121	CCV CF	210.2
	CF = (H/C)	%Difference	= ((ICAL - CCV)/ICAL)*100

FIELD DUPLICATES

COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD
PCA					#DIV/0!

NOTES Samples are not qualified on this basis.

COMPOUND IDENTIFICATION AND QUANTITATION

Has a F10 been completed for every sample containing positive results?	Yes
Was RT data presented on the form?	NA
Are RTs within the established winodws?	Yes
Any transcription or calculation errors?	No
Any false positives, negative peaks, shouldering, etc.?	No
Was GCMS confirmation needed for results > 10 µg/ml?	NA
Were percent differences or relative percent differences calculated?	NA
Are percent differences/RPDs greater than 25%?	NA
Are there any transcription errors?	No
Are Form1s present for all field and quality control samples?	No
Are chromatograms and quan reports present for all samples?	Yes
Are RLs adjusted to reflect sample dilutions, percent solids, etc.?	Yes
For soils, any precent solids <50%?	No
For soils, any precent solids <10%?	No

LCS RDX 1.27 µg/L

	A
response	4962
cf	77.89163
final vol ml	20
initial L	1
df	1
calculated	1.2741

23LC MW040W

TestAmerica West Sacramento

A-000006.D

Chromatography Summary

Injection Date: 7/2/2009 19:40 Operator: fhk

DataFile: LC10 I\07022009 B\A-000006 D Vial Num: 13

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **LFQAK1AC 9182192 G9F260326-1 1X** Method File: LC10.I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	997.78 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFQAK1AC 9182192 G9F260326-1 1X,0,

Misc. Info: ;,997 78,,20.1,WATER sub,;0;1,LFQAK1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.001	6135	2.6070<		18.24	-0.006	11892	2.7570		0.0000	0.00	
HMX											0 0271	0 10	
RDX											0 0651	0.10	
Picric ACID											0 1253	1.00	
1,3,5-Trinitrobenzene	10 14	-0 086	264	0 0359<							0 0311	0.10	45
1,3-Dinitrobenzene											0 0501	0 10	
TETRYL											0.0501	0.10	
Nitrobenzene											0 0501	0.10	
2,4,6-Trinitrotoluene											0 0241	0.10	
4-AM-2,6-DNT											0 0220	0.10	
2-AM-4,6-DNT											0 1002	0.20	
2,6-Dinitrotoluene											0 0501	0 10	
2,4-Dinitrotoluene											0 0501	0.10	
2-Nitrotoluene											0 0722	0 50	
4-Nitrotoluene											0 0722	0.50	
3-Nitrotoluene											0 0621	0 50	
Nitroglycerin											0.3307	0 65	
PETN											0 3007	0 65	
3,5-Dinitroaniline											0 0251	1.00	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5056	2.6070	104	2.5056	2.7570	110	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC Non-Client

Client Lot #...: G9F260326 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroglycerin	106	(85 - 115)			SW846 8330
	108	(85 - 115)	2.0	(0-15)	SW846 8330
PETN	110	(84 - 117)			SW846 8330
	111	(84 - 117)	0.90	(0-15)	SW846 8330
Picric Acid	70	(21 - 118)			SW846 8330
	99 p	(21 - 118)	35	(0-20)	SW846 8330
2-Amino-4,6-dinitrotoluene	125 a	(77 - 123)			SW846 8330
	129 a	(77 - 123)	3.4	(0-27)	SW846 8330
4-Amino-2,6-dinitrotoluene	116 a	(68 - 113)			SW846 8330
	120 a	(68 - 113)	3.0	(0-30)	SW846 8330
1,3-Dinitrobenzene	125 a	(72 - 123)			SW846 8330
	130 a	(72 - 123)	4.1	(0-29)	SW846 8330
2,4-Dinitrotoluene	120 a	(70 - 119)			SW846 8330
	124 a	(70 - 119)	2.9	(0-30)	SW846 8330
2,6-Dinitrotoluene	122 a	(71 - 119)			SW846 8330
	125 a	(71 - 119)	2.9	(0-29)	SW846 8330
HMX	118 a	(67 - 115)			SW846 8330
	120 a	(67 - 115)	1.4	(0-32)	SW846 8330
Nitrobenzene	121 a	(69 - 119)			SW846 8330
	124 a	(69 - 119)	2.5	(0-31)	SW846 8330
2-Nitrotoluene	117	(64 - 120)			SW846 8330
	113	(64 - 120)	2.7	(0-36)	SW846 8330
3-Nitrotoluene	113	(67 - 114)			SW846 8330
	115 a	(67 - 114)	2.0	(0-31)	SW846 8330
4-Nitrotoluene	114	(67 - 115)			SW846 8330
	116 a	(67 - 115)	2.3	(0-32)	SW846 8330
RDX	121	(68 - 122)			SW846 8330
	129 a	(68 - 122)	6.3	(0-32)	SW846 8330
Tetryl	102	(66 - 105)			SW846 8330
	106 a	(66 - 105)	4.2	(0-26)	SW846 8330
1,3,5-Trinitrobenzene	119	(74 - 120)			SW846 8330
	124 a	(74 - 120)	4.3	(0-29)	SW846 8330
2,4,6-Trinitrotoluene	113 a	(69 - 111)			SW846 8330
	117 a	(69 - 111)	3.4	(0-28)	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits

a Spiked analyte recovery is outside stated control limits

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroglycerin	ND	4.91	5.19	ug/L	106		SW846 8330
	ND	4.92	5.29	ug/L	108	2.0	SW846 8330
PETN	ND	4.91	5.41	ug/L	110		SW846 8330
	ND	4.92	5.46	ug/L	111	0.90	SW846 8330
Picric Acid	ND	4.91	3.41	ug/L	70		SW846 8330
	ND	4.92	4.85	ug/L	99 p	35	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.982	1.22	ug/L	125 a		SW846 8330
	ND	0.983	1.26	ug/L	129 a	3.4	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.982	1.14	ug/L	116 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	3.0	SW846 8330
1,3-Dinitrobenzene	ND	0.982	1.23	ug/L	125 a		SW846 8330
	ND	0.983	1.28	ug/L	130 a	4.1	SW846 8330
2,4-Dinitrotoluene	ND	0.982	1.18	ug/L	120 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.9	SW846 8330
2,6-Dinitrotoluene	ND	0.982	1.19	ug/L	122 a		SW846 8330
	ND	0.983	1.23	ug/L	125 a	2.9	SW846 8330
HMX	ND	0.982	1.16	ug/L	118 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	1.4	SW846 8330
Nitrobenzene	ND	0.982	1.19	ug/L	121 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.5	SW846 8330
2-Nitrotoluene	ND	0.982	1.14	ug/L	117		SW846 8330
	ND	0.983	1.11	ug/L	113	2.7	SW846 8330
3-Nitrotoluene	ND	0.982	1.11	ug/L	113		SW846 8330
	ND	0.983	1.14	ug/L	115 a	2.0	SW846 8330
4-Nitrotoluene	ND	0.982	1.12	ug/L	114		SW846 8330
	ND	0.983	1.14	ug/L	116 a	2.3	SW846 8330
RDX	ND	0.982	1.19	ug/L	121		SW846 8330
	ND	0.983	1.27	ug/L	129 a	6.3	SW846 8330
Tetryl	ND	0.982	0.998	ug/L	102		SW846 8330
	ND	0.983	1.04	ug/L	106 a	4.2	SW846 8330
1,3,5-Trinitrobenzene	0.035	0.982	1.20	ug/L	119		SW846 8330
	0.035	0.983	1.26	ug/L	124 a	4.3	SW846 8330
2,4,6-Trinitrotoluene	ND	0.982	1.11	ug/L	113 a		SW846 8330
	ND	0.983	1.15	ug/L	117 a	3.4	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFW791AC Matrix.....: WATER
LCS Lot-Sample#: G9G010000-192
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroglycerin	107	(85 - 115)	SW846 8330
PETN	110	(84 - 117)	SW846 8330
Picric Acid	88	(21 - 118)	SW846 8330
2-Amino-4,6-dinitrotoluene	127 a	(77 - 123)	SW846 8330
4-Amino-2,6-dinitrotoluene	119 a	(68 - 113)	SW846 8330
1,3-Dinitrobenzene	128 a	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	123 a	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	125 a	(71 - 119)	SW846 8330
HMX	120 a	(67 - 115)	SW846 8330
Nitrobenzene	124 a	(69 - 119)	SW846 8330
2-Nitrotoluene	115	(64 - 120)	SW846 8330
3-Nitrotoluene	118 a	(67 - 114)	SW846 8330
4-Nitrotoluene	117 a	(67 - 115)	SW846 8330
RDX	127 a	(68 - 122)	SW846 8330
Tetryl	105	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	127 a	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	116 a	(69 - 111)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFW791AC Matrix.....: WATER
LCS Lot-Sample#: G9G010000-192
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroglycerin	5.00	5.35	ug/L	107	SW846 8330
PETN	5.00	5.52	ug/L	110	SW846 8330
Picric Acid	5.00	4.42	ug/L	88	SW846 8330
2-Amino-4,6-dinitrotoluene	1.00	1.27 a	ug/L	127	SW846 8330
4-Amino-2,6-dinitrotoluene	1.00	1.19 a	ug/L	119	SW846 8330
1,3-Dinitrobenzene	1.00	1.28 a	ug/L	128	SW846 8330
2,4-Dinitrotoluene	1.00	1.23 a	ug/L	123	SW846 8330
2,6-Dinitrotoluene	1.00	1.25 a	ug/L	125	SW846 8330
HMX	1.00	1.20 a	ug/L	120	SW846 8330
Nitrobenzene	1.00	1.24 a	ug/L	124	SW846 8330
2-Nitrotoluene	1.00	1.15	ug/L	115	SW846 8330
3-Nitrotoluene	1.00	1.18 a	ug/L	118	SW846 8330
4-Nitrotoluene	1.00	1.17 a	ug/L	117	SW846 8330
RDX	1.00	1.27 a	ug/L	127	SW846 8330
Tetryl	1.00	1.05	ug/L	105	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.27 a	ug/L	127	SW846 8330
2,4,6-Trinitrotoluene	1.00	1.16 a	ug/L	116	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

TestAmerica West Sacramento

A-000005.D

Chromatography Summary

Injection Date: 7/2/2009 18:50 Operator: fhk

DataFile: LC10 I\07022009 B\A-000005.D Vial Num: 12

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **LFW791AC 9182192 G9G010000-192 C 1X**

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1000 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList: WATER spk

Samp. Info: LFW791AC 9182192 G9G010000-192 C 1X:3;

Misc. Info: LCS.,1000,,20;1-WATER sub;WATER spk,1,1,LFW791AC

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 23	6246	2 6480<	2 5	106%	Acceptable		18.23	12082	2.7950	2.5	112%	Fails		(79-111)	
HMX	5.30	7265	1.2020<	1	120%	Fails					1	0%	Fails		(65-115)	45
RDX	7.88	4962	1.2740<	1	127%	Fails					1	0%	Fails		(68-122)	45
Picric ACID	9.06	18341	4.4320	5	89%	Acceptable		9 06	26909	4.4230<	5	88%	Acceptable		(21-118)	
1,3,5-Trinitrobenzene	10.23	9382	1.2710<	1	127%	Fails					1	0%	Fails		(74-120)	45
1,3-Dinitrobenzene	13.30	8977	1.2850<	1	129%	Fails					1	0%	Fails		(72-123)	45
TETRYL	14 35	4859	1 0470<	1	105%	Acceptable					1	0%	Fails		(66-105)	45
Nitrobenzene	15.23	3778	1.2450<	1	125%	Fails					1	0%	Fails		(69-119)	45
2,4,6-Trinitrotoluene	16.58	5089	1.1600<	1	116%	Fails					1	0%	Fails		(69-111)	45
4-AM-2,6-DNT	17.60	3716	1.1930<	1	119%	Fails					1	0%	Fails		(68-113)	45
2-AM-4,6-DNT	18.66	4662	1.2680<	1	127%	Fails					1	0%	Fails		(77-123)	45
2,6-Dinitrotoluene	20.39	3326	1.2490<	1	125%	Fails					1	0%	Fails		(71-119)	45
2,4-Dinitrotoluene	21.10	5280	1.2330<	1	123%	Fails					1	0%	Fails		(70-119)	45
2-Nitrotoluene	24.82	2061	1 1470<	1	115%	Acceptable					1	0%	Fails		(64-120)	45
4-Nitrotoluene	26.68	2553	1.1660<	1	117%	Fails					1	0%	Fails		(67-115)	45
3-Nitrotoluene	28.69	2534	1.1750<	1	118%	Fails					1	0%	Fails		(67-114)	45
Nitroglycerin				5	0%	Fails		15 84	16262	5 3460<	5	107%	Acceptable		(85-115)	45
PETN				5	0%	Fails		30 25	8838	5 5150<	5	110%	Acceptable		(84-117)	45
3,5-Dinitroaniline	14.04	5620	1.2490<	1	125%	Acceptable					1	0%	Fails		(40-140)	45

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5000	2.6480	106	2.5000	2.7950	112	(79-111)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

LCS

Test America West Sacramento

Method 8330

Data file : \\Terastation\share\GCdata\LC10.I\07022009.B\A-000005.D
Lab Smp Id: LFW791AC 9182192 G9
Inj Date : 02-JUL-2009 18:50
Operator : fhk Inst ID: LC10.i
Smp Info : LFW791AC 9182192 G9G010000-192 C 1X;3;
Misc Info : LCS;;1000;;20;1;WATER.sub;WATER.spk;1;1;LFW791AC
Comment : SOP SAC-LC-0009
Method : \\Terastation\share\GCdata\LC10.I\07022009.B\8330AB.m
Meth Date : 02-Jul-2009 19:27 kenneyf Quant Type: AREA%
Cal Date : 11-JUN-2009 13:47 Cal File: A-000015.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon+ Compound Sublist: WATER.sub
Target Version: 4.14
Processing Host: SACP307HPLC

Concentration Formula: Amt * DF * Uf*Vt / Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	20.000	Volume of final extract (mL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS
5.298	44338	7265	0.164	7.31		2 HMX
7.878	52369	4962	0.095	4.99		3 RDX
9.061	240427	18341	0.076	18.58		5 Picric ACID
10.228	121534	9382	0.077	9.44		6 1,3,5-Trinitrobenz
11.635	533	49	0.092	0.04		
12.105	7464	514	0.069	0.51		
12.778	132	46	0.347	0.04		
13.301	143585	8977	0.063	9.04		7 1,3-Dinitrobenzene
14.045	89298	5620	0.063	5.66		8 3,5-Dinitroaniline
14.351	82373	4859	0.059	4.89		9 TETRYL
15.235	67423	3778	0.056	3.80		10 Nitrobenzene
16.585	95229	5089	0.053	5.12		12 2,4,6-Trinitrotolu
17.598	75159	3716	0.049	3.74		13 4-AM-2,6-DNT
18.235	122827	6246	0.051	6.29	$	1 3,4-Dinitrotoluene
18.658	104810	4662	0.044	4.69		14 2-AM-4,6-DNT
20.395	74253	3326	0.045	3.34		15 2,6-Dinitrotoluene
21.105	128415	5280	0.041	5.31		16 2,4-Dinitrotoluene
23.125	284	28	0.099	0.02		
24.825	56586	2061	0.036	2.07		17 2-Nitrotoluene
26.678	75508	2553	0.034	2.57		18 4-Nitrotoluene
28.688	80096	2534	0.032	2.55		19 3-Nitrotoluene
	1662642	99288		100.000		

Total unknown % height = 0.6100

METHOD BLANK REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFW791AA Matrix.....: WATER
MB Lot-Sample #: G9G010000-192

Prep Date.....: 07/01/09
Analysis Date..: 07/02/09 Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	**0.039 J**	**0.10**	**ug/L**	**SW846 8330**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

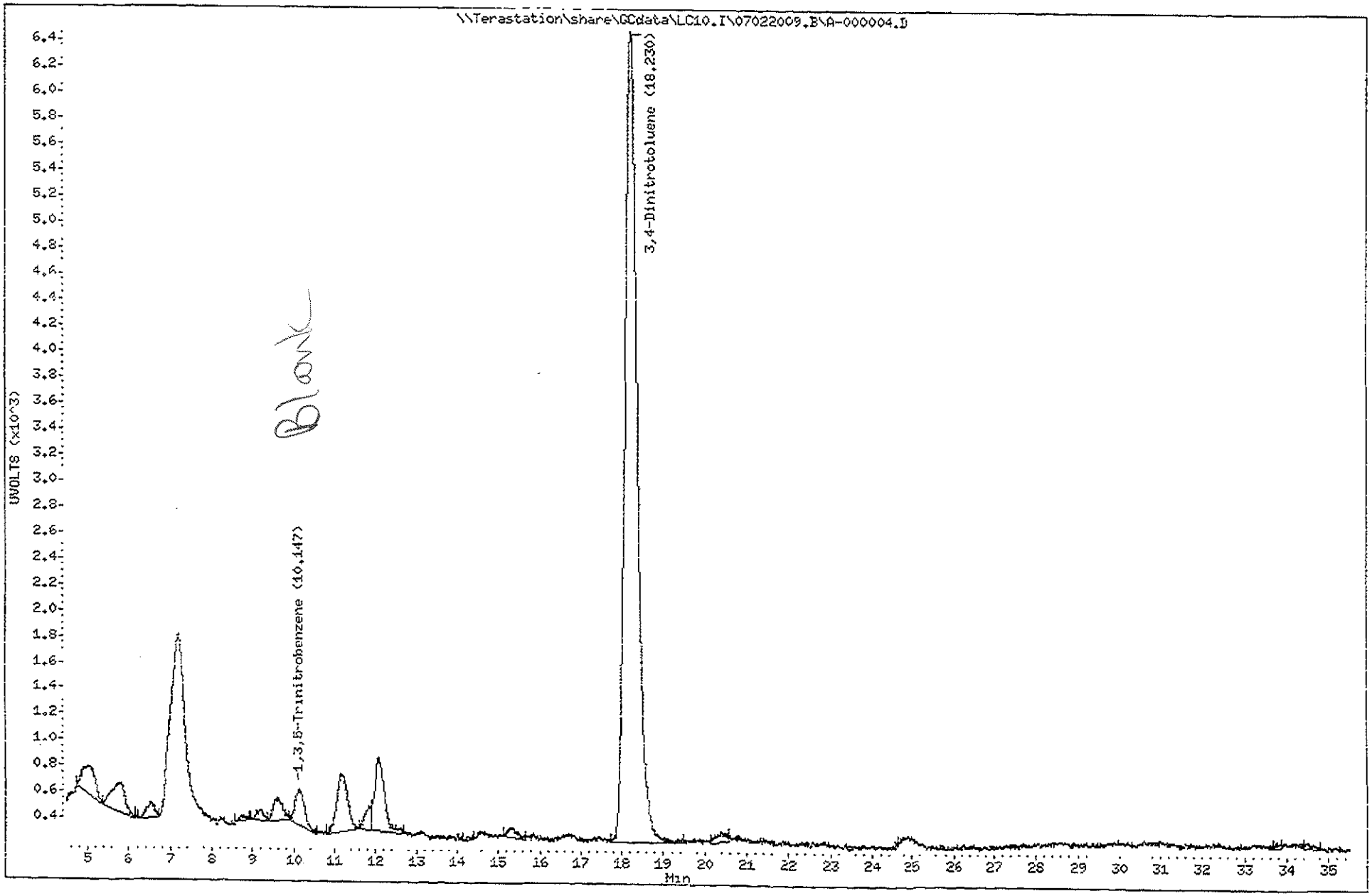
NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL

Data File: \\Terastation\share\GCdata\LC10.I\07022009.B\A-000004.D
Date : 02-JUL-2009 18:00
Client ID:
Sample Info: LFW791AA 9182192 G9G010000-192 B 1X;0;
Volume Injected (uL): 500.0
Column phase: SYNERGI HYDRORP C18

Instrument: LC10.i
Operator: fhk
Column diameter: 4.60



QC DATA ASSOCIATION SUMMARY

G9F260326

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9182192	9182194
002	WATER	SW846 8330		9182192	9182194
003	WATER	SW846 8330		9182192	9182194

BI

TestAmerica West Sacramento
ESC-Extraction Master Sheet

Holding Time Due: 7/1/09 7/02/09
BATCH #: 9182192
Test #: 8330-L

Project Due: 7/10/09 7/13/09
Initiated By: TP
Extn Comp'd By: TP

Date: 7/01/09
Date: 7/02/09

SOP No.: WS-LC-0009

EXTRACTION COMMENTS:

QC Code	Lab ID	Sample Size / Initial Mass	Final Volume / Final Mass	Difference in Mass
	MB	See weight Sheet		TP 7/02/09
C	LCS			
	G9F260326-01			
	G9F260326-02			
	G9F260326-03			
TP 7/01/09	G9F270189			
	G9F270189-02			
	G9F270189-03			
	G9F270189-04			
	G9F270189-05			
	G9F300242-01			
	G9F300242-02			
	G9F300242-03			
	G9F300242-04			
S	G9F300242-04MS			
D	G9F300242-04MSD			
	G9F300242-05			
	TP 7/02/09			

QC Codes	Standard Information				
	Volume	STD ID	Exp. Date	STD Name/Conc.	ppm/Dp
All	50uL	09GCSV0172	12/10/09	8330 Surr 50ug/mL	2.5
C,S,D	20uL	09GCSV0037	7/17/09	3,5 DNA 50ug/mL	1.0
C,S,D	100uL	09GCSV0149	11/1/09	NG/PETN 50ug/mL	5.0
C,S,D	100uL	09GCSV0039	7/17/09	Picric Acid 50ug/mL	5.0

Spiked By / Date: TP 7/01/09
Witnessed By / Date: ND 7-1-09

QC Codes: B = MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/02/09
Time: 11:49:39

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
Y	_	MS/MSD	Y	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGrou
_ Bench Sheet Copied per COC

Extractionist: 002448 Tuan Q. Phan

Concentrationist: 002448 Tuan Q. Phan

Reviewer/Date: PHANT / 7/02/09

****
* *
* QC BATCH: 9182192 *
* *
****

PREP DATE: 7/01/09 9:00
COMP DATE: 7/02/09 10:40

Nitroaromatics & Nitramines: Explosives (8330)
SOLID PHASE EXTRACTION (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/01/09	7/10/09	G9F260326-001 LFQAK-1-AC		B7	A0	WATER	997.78mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/10/09	G9F260326-002 LFQAL-1-AC		B7	A0	WATER	991.12mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/10/09	G9F260326-003 LFQAM-1-AC		B7	A0	WATER	1009.82mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/13/09	G9F270189-001 LFRD6-1-AC		B7	A0	WATER	985.56mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-002 LFRD7-1-AC		B7	A0	WATER	999.12mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-003 LFRD8-1-AC		B7	A0	WATER	991.73mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-004 LFRD9-1-AC		B7	A0	WATER	996.78mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/02/09
Time: 11:49:39

QC BATCH: 9182192

PREP DATE: 7/01/09 9:00
COMP DATE: 7/02/09 10:40

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/02/09	7/13/09	G9F270189-005 LFREA-1-AC		B7	A0	WATER	985.33mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-001 LFV9A-1-AC		B7	A0	WATER	1014.4mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-002 LFV9G-1-AC		B7	A0	WATER	975.28mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-003 LFV9J-1-AC		B7	A0	WATER	1018.21mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AC		B7	A0	WATER	1028.11mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AFS		B7	A0	WATER	1018.28mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AGD		B7	A0	WATER	1017.3mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-005 LFV9M-1-AC		B7	A0	WATER	1016.72mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	0/00/00	G9G010000-192 LFW79-1-AAB		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	0/00/00	G9G010000-192 LFW79-1-ACC		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															

.1% HOAC.ACN 2991-95F; .1%HOAC/H2O 2991-87B;FILTER MILLIPORE LOT R5PN29184
SPE COLUMN WATER LOT 003339084A; SODIUM CHLORIDE MALLINCKRODT LOT H07582
LCS,MS/MSD SPIKE 20UL-09GCSV0037;100UL-09GCSV0149;100UL-09GCSV0039

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 06102009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUN-2009	14:42	fhk	Blank	A-000001.	0 g	0 mL	1	
10-JUN-2009	15:33	fhk	STD_1 09GCSV0048 5.0/0/0/0ng/m	A-000002.	0 g	0 mL	1	
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049 10/20/10/10ng	A-000003.	0 g	0 mL	1	
10-JUN-2009	17:14	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000004.	0 g	0 mL	1	Bad Std
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051 50/100/50/50n	A-000005.	0 g	0 mL	1	
10-JUN-2009	18:56	fhk	STD_5 09GCSV0053 100/200/100/1	A-000006.	0 g	0 mL	1	
10-JUN-2009	19:46	fhk	STD_6 09GCSV0054 200/500/200/2	A-000007.	0 g	0 mL	1	
10-JUN-2009	20:37	fhk	STD_7 09GCSC0055 500/1000/500/	A-000008.	0 g	0 mL	1	
10-JUN-2009	21:28	fhk	STD_8 09GCSV0056 1000/2000/100	A-000009.	0 g	0 mL	1	
10-JUN-2009	22:18	fhk	Blank	A-000010.	0 g	0 mL	1	
10-JUN-2009	23:09	fhk	ICV_6 09GCSV0397 100/200/100/1	A-000011.	0 g	0 mL	1	
11-JUN-2009	00:00	fhk	STD_5 09GCSV0053 100/200/100/1	A-000012.	0 g	0 mL	1	
11-JUN-2009	00:50	fhk	Surrogate 100ng/mL	A-000013.	0 g	0 mL	1	
11-JUN-2009	12:56	fhk	Primer	A-000014.	0 g	.0 mL	1	
11-JUN-2009	13:47	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000015.	0 g	0 mL	1	Verify extract New Std

JMR 6/11/09

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
2 HMX	119	120	115	125	123	124		
	116	123					121	3.066
3 RDX	81.80000	75.90000	77.15000	80.72000	78.45000	80.13000		
	69.16800	79.81500					77.89163	5.156
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++ <-
5 Picric ACID	+++++	+++++	91.72000	85.66000	84.85500	84.88200		
	74.63400	74.87800					82.77483	8.120
6 1,3,5-Trinitrobenzene	161	146	145	150	147	148		
	136	147					148	4.610
7 1,3-Dinitrobenzene	145	142	138	142	139	142		
	128	141					140	3.715
8 3,5-Dinitroaniline	97.20000	90.80000	89.35000	91.80000	88.83000	90.35000		
	82.20800	89.25000					89.97350	4.581
9 TETRYL	97.60000	95.10000	77.40000	96.02000	94.31000	95.06000		
	92.43000	94.40900					92.79113	6.888

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
10 Nitrobenzene	63.80000	62.30000	56.55000	61.44000	61 06000	62.26000		
	56.02600	61.95700					60.67412	4.659
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	94.80000	90.20000	91.90000	88.78000	87.04000	87.55500		
	84.22200	87 17800					87.70937	4.401
13 4-AM-2,6-DNT	67.00000	63 30000	60.85000	63 26000	61.61000	62.67000		
	58.65400	61 14600					62.31125	3.901
14 2-AM-4,6-DNT	74.80000	75.80000	73.10000	75.54000	73.53000	74.39000		
	69.18400	72.13500					73.55987	2.932
15 2,6-Dinitrotoluene	57.60000	53.30000	51.90000	53.68000	53.03000	53.21500		
	50.43000	52.74900					53.23800	3.835
16 2,4-Dinitrotoluene	93.00000	86.50000	82.60000	86.20000	84.72000	85.49000		
	81.43200	85.05700					85.63488	4.031
17 2-Nitrotoluene	40.80000	37.40000	33.20000	35.64000	35 21000	35 77500		
	33.97400	35.45000					35.93113	6.486
18 4-Nitrotoluene	48.00000	46.40000	40.75000	43.56000	43.22000	43 56500		
	41.67600	43.21300					43.79800	5.390
19 3-Nitrotoluene	47.00000	44.60000	39.85000	43 24000	42.93000	43.08000		
	41.51600	42.82400					43.13000	4.852
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	50.10000	46.40000	46.48000	45.87000	46.85500		
	46.08000	48.38600					47.16729	3.251

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\833
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-0
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-0
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-0
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-0
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-0
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-0
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-0

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD	
2 HMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 RDX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
5 Picric ACID	+++++	134	126	125	125	110	110	122	8.080	
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 3,5-Dinitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 TETRYL	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\833
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
10 Nitrobenzene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
11 Nitroglycerin	*****	61.25000	59.82000	60.58000	61.86500	59.75400		
	61.73900						60.83467	1.527
12 2,4,6-Trinitrotoluene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
13 4-AM-2,6-DNT	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
14 2-AM-4,6-DNT	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
15 2,6-Dinitrotoluene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
16 2,4-Dinitrotoluene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
17 2-Nitrotoluene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
18 4-Nitrotoluene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
19 3-Nitrotoluene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
20 PETN	*****	32.65000	30.36000	31.91000	32.25000	32.38000		
	32.75200						32.05033	2.748

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
$ 1 3,4-Dinitrotoluene	* +++++	90.40000	88.76000	88.28000	90.51000	88.03667		
	93.14200						89.85478	2.142

* Level 2 dropped due to poor integration
6/12/09

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 6/10/2009 23:09 Operator: fhk

DataFile: LC10.I\06102009 B\A-000011.D Vial Num: 20

Instrument ID: LC10

Method 8330 Target Analyte Results

Sample: **ICV_6 08GCSV0397 100/200/100/100ng/mL**

Method File: LC10 I\06102009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 100/200/100/100ng/mL;2

Misc. Info: ;6; , ; ;3;CAL sub; ;0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
HMX	5.29	26153	216.4000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.84	16084	206.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.00	41754	504.4000	500	1%	Acceptable		9.00	61509	505.5000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.25	27834	199.2000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.30	17776	191.6000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.28	10445	196.2000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.00	16653	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.49	8451	195.9000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206.3000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.10	5830	181.9000<	200	-9%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

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TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07022009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
02-JUL-2009	15:27	fhk	Primer	A-000001.	0 g	0 mL	1	
02-JUL-2009	16:18	fhk	Primer	A-000002.	0 g	0 mL	1	
02-JUL-2009	17:09	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000003.	0 g	0 mL	1	
02-JUL-2009	18:00	fhk	LFW791AA 9182192 G9G010000-192	A-000004.	1000 mL	20 mL	1	
02-JUL-2009	18:50	fhk	LFW791AC 9182192 G9G010000-192	A-000005.	1000 mL	20 mL	1	
02-JUL-2009	19:40	fhk	LFQAK1AC 9182192 G9F260326-1 1	A-000006.	997.78 mL	20 mL	1	
02-JUL-2009	20:31	fhk	LFQAL1AC 9182192 G9F260326-2 1	A-000007	991 12 mL	20 mL	1	
02-JUL-2009	21:22	fhk	LFQAM1AC 9182192 G9F260326-3 1	A-000008.	1009.82 mL	20 mL	1	
02-JUL-2009	22:13	fhk	LFRD61AC 9182192 G9F270189-1 1	A-000009.	985.56 mL	20 mL	1	
02-JUL-2009	23:03	fhk	LFRD71AC 9182192 G9F270189-2 1	A-000010.	999 12 mL	20 mL	1	
02-JUL-2009	23:54	fhk	LFRD81AC 9182192 G9F270189-3 1	A-000011.	991 73 mL	20 mL	1	
03-JUL-2009	00:45	fhk	STD_5 09GCSV0053 .2K/.1/ 1/.1/	A-000012.	0 g	0 mL	1	
03-JUL-2009	01:36	fhk	LFRD91AC 9182192 G9F270189-4 1	A-000013.	996.78 mL	20 mL	1	
03-JUL-2009	02:27	fhk	LFREA1AC 9182192 G9F270189-5 1	A-000014.	985.33 mL	20 mL	1	
03-JUL-2009	03:17	fhk	LFV9A1AC 9182192 G9F300242-1 1	A-000015.	1014.4 mL	20 mL	1	
03-JUL-2009	04:07	fhk	LFV9G1AC 9182192 G9F300242-2 1	A-000016	975.28 mL	20 mL	1	
03-JUL-2009	04:58	fhk	LFV9J1AC 9182192 G9F300242-3 1	A-000017.	1018.21 mL	20 mL	1	
03-JUL-2009	05:49	fhk	LFV9K1AC 9182192 G9F300242-4 1	A-000018.	1028.11 mL	20 mL	1	
03-JUL-2009	06:39	fhk	LFV9K1AF 9182192 G9F300242-4 S	A-000019.	1018.28 mL	20 mL	1	
03-JUL-2009	07.30	fhk	LFV9K1AG 9182192 G9F300242-4 D	A-000020.	1017 3 mL	20 mL	1	
03-JUL-2009	08:20	fhk	LFV9M1AC 9182192 G9F300242-5 1	A-000021	1016.72 mL	20 mL	1	
03-JUL-2009	09:11	fhk	STD_6 09GCSV0054 4K/ 2/.2/.2/	A-000022.	0 g	0 mL	1	
03-JUL-2009	10:01	fhk	09GCSV0234 LEVEL 1	A-000023.	0 g	0 mL	1	
03-JUL-2009	10:52	fhk	09GCSV0235 LEVEL 2	A-000024.	0 g	0 mL	1	
03-JUL-2009	11:42	fhk	09GCSV0236 LEVEL 3	A-000025.	0 g	0 mL	1	
03-JUL-2009	12:33	fhk	09GCSV0237 LEVEL 4	A-000026.	0 g	0 mL	1	
03-JUL-2009	13:23	fhk	09GCSV0238 LEVEL 5	A-000027.	0 g	0 mL	1	
03-JUL-2009	14:14	fhk	09GCSV0239 LEVEL 5	A-000028.	0 g	0 mL	1	
03-JUL-2009	15:04	fhk	09GCSV0240 LEVEL 6	A-000029.	0 g	0 mL	1	
03-JUL-2009	15:55	fhk	09GCSV0241 LEVEL 7	A-000030	0 g	0 mL	1	
03-JUL-2009	16.45	fhk	09GCSV0242 LEVEL 8	A-000031.	0 g	0 mL	1	
03-JUL-2009	17:36	fhk	09GCSV0243 MRL	A-000032.	0 g	0 mL	1	

TestAmerica West Sacramento

A-000003.D

Chromatography Summary

Method 8330 Target Analyte Results

Sample : **STD_6 09GCSV0054 .4K/.2/.2/.2/.2**

Injection Date: 7/2/2009 17:09 Operator: fhk

DataFile: I:\C10\07022009 B\A-000003.D Vial Num: 2

Instrument ID: I:C10

Method File: I:\C10\07022009 B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Misc. Info: ,6, , , ;3;CAL.sub, ,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.20	9636	204.3000<	200	2%	Acceptable		18.20	18445	213.4000	200	7%	Acceptable		(±15)	
HMX	5.29	25432	210.5000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.85	16295	209.2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8.99	41811	505.1000	500	1%	Acceptable		8.99	61520	505.6000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	30367	205.7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.26	29099	208.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.32	19114	206.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.19	12872	212.1000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.55	18075	206.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.55	12873	208.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.61	15046	204.5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.34	10970	206.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.06	17567	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.79	7368	205.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.61	8982	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.64	8962	207.8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.31	12531	206.0000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.22	6862	214.1000<	200	7%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.01	18502	205.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

A-000012.D

Chromatography Summary

Injection Date: 7/7/2009 0:45 Operator: fhk

DataFile: LC10 \07022009 B\A-000012 D Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample: **STD_5 09GCSV0053 .2K/.1/.1/.1/.1**

Method File: LC10 \07022009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13.47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_5 09GCSV0053 2K/ 1/ 1/ 1/.1;2

Misc. Info: :5; : : :3;CAL sub, .0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 21	4770	101.1000<	100	1%	Acceptable		18 21	9105	105 3000	100	5%	Acceptable		(±15)	
HMX	5 29	12664	104 8000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7 86	8028	103 1000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9.05	16980	205 1000	200	3%	Acceptable		9 05	25011	205 5000<	200	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10 21	15116	102 4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.27	14453	103 5000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14 34	9510	102 5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15 20	6322	104 2000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16 57	9018	102 8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 56	6403	102 8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.63	7508	102 1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20 35	5455	102 5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.08	8726	101.9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.79	3635	101 2000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26 61	4448	101 6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28 63	4394	101 9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15 82	6254	102.8000<	100	3%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30.25	3304	103 1000<	100	3%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.02	9179	102 0000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

A-000022.D

Chromatography Summary

Injection Date: 7/3/2009 9.11 Operator: fhk

DataFile: LC10 I\07022009 B\A-000022 D Vial Num: 4

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **STD_6 09GCSV0054 .4K/.2/.2/.2/.2**

Method File: LC10 I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15.33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_6 09GCSV0054 4K/.2/.2/.2/.2

Misc. Info: ,6, , . ,3,CAL.sub, ,0.1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.24	9589	203.3000<	200	2%	Acceptable		18.23	18290	211.6000	200	6%	Acceptable		(±15)	
HMX	5.30	25440	210.6000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.87	16268	208.8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.04	42655	515.3000	500	3%	Acceptable		9.04	62723	515.5000<	500	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.22	30282	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.29	28991	207.5000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.35	19191	206.8000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.21	12738	209.9000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.58	18022	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.58	12828	205.9000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.65	15059	204.7000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.38	10882	204.4000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.10	17483	204.2000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.82	7294	203.0000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.64	8676	202.6000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.67	8836	204.9000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.84	12481	205.2000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.27	6681	208.4000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.03	18458	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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Data Validation Report

Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0839

ECT.CON INC.

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ECT.CON INC.
Environmental and Computer
Technology Consultants

Data Validation Report

SDG#	PSF0839
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Date Sampled	Location	Portland ID	Sacramento ID	Explosives	Matrix
06/24/09	23LCMW03DW	PSF0839-01	LFRD6	X	Aqueous
06/25/09	23LCMW03SW	PSF0839-02	LFRD7	X	Aqueous
06/25/09	23LCMW02DW	PSF0839-03	LFRD8	X	Aqueous
06/25/09	23LCMW02SW	PSF0839-04	LFRD9	X	Aqueous
06/25/09	23LCMW01DW	PSF0839-05	LFREA	X	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

SUMMARY

The sample set for the Camp Bonneville site consists of five aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

* • Data Completeness
* • Holding Times
* • Calibration (Initial and Continuing)
  • Blanks
* • System Monitoring Compounds (Surrogate Spikes)
* • Matrix Spike/Matrix Spike Duplicates
* • Laboratory Control Standard Results
* • Target Compound Identification
  • Compound Quantification and Reported Contract Quantitation Limits

* • System Performance

* Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

FINDINGS

1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum Concentration (ppb)	Action Limit (ppm)	Action
LFW791	1,3,5-Trinitrobenzene	0.038	0.19	U sample results < RL

RL - reporting limit

2. Compound Quantitiation

In sample 23LCMW02DW, the positive result below the reporting limit for 2-nitrotoluene was not confirmed. Therefore, the form one was amended to show the result as nondetected "U" at the reporting limit.

NOTES

Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

Laboratory Control Sample Results

Recovery of 12 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

Field Duplicate Results

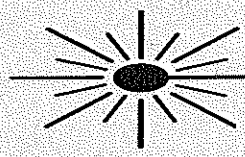
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer

8/17/09
Date

Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



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Annotated Form 1's
(Spreadsheet)

TestAmerica Portland

Client Sample ID: PSF0839-01

HPLC 23LCMW030W

Lot-Sample #...: G9F270189-001 Work Order #...: LFRD61AC Matrix.....: WATER
Date Sampled...: 06/24/09 Date Received..: 06/27/09
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1.01 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.66	ug/L	0.15
PETN	ND	0.66	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.13
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.073
3-Nitrotoluene	ND	0.40	ug/L	0.063
4-Nitrotoluene	ND	0.50	ug/L	0.073
RDX	ND	0.10	ug/L	0.066
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.035 J,B~~	0.10 U	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WF 8/10/09

TestAmerica Portland

Client Sample ID: PSF0839-02

HPLC 23LMW035W

Lot-Sample #...: G9F270189-002 Work Order #...: LFRD71AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/27/09
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.037 J,B~~	**0.10** U	**ug/L**	**0.031**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

J Estimated result Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

WF 8/6/09

TestAmerica Portland

Client Sample ID: PSF0839-03

HPLC 23LCMW02DW

Lot-Sample #...: G9F270189-003 Work Order #...: LFRD81AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/27/09
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	~~0.20 J~~ J	0.40 U	**ug/L**	**0.072**
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.034 J,B~~	0.10 U	**ug/L**	**0.031**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WF 8/10/09

TestAmerica Portland

Client Sample ID: PSF0839-04

HPLC 23LCMW025W

Lot-Sample #...: G9F270189-004 Work Order #...: LFRD91AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/27/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 1 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.037 J,B~~	**0.10** U	**ug/L**	**0.031**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	105	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

WH 8/19/09

TestAmerica Portland

Client Sample ID: PSF0839-05

HPLC 23LCMW01DW

Lot-Sample #...: G9F270189-005 Work Order #...: LFREA1AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/27/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 1.01 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.66	ug/L	0.15
PETN	ND	0.66	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.13
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.073
3-Nitrotoluene	ND	0.40	ug/L	0.063
4-Nitrotoluene	ND	0.50	ug/L	0.073
RDX	ND	0.10	ug/L	0.066
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	~~0.038 J,B~~	0.10 U	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

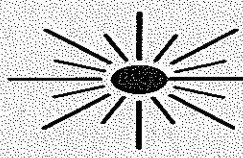
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	105	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WT 8/6/09



ECT.CON INC.

Environmental and Computer
Technology Consultants

Support Documentation

Laboratory Case Narrative

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc.
James D. Peyton
5261 Fountain Drive, Suite A
Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater
Client Project Number: 110002 Task 6200

TA Work Order#: PSF0839

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

154

July 31, 2009

TestAmerica - Portland
9405 S. W. Nimbus Avenue
Beaverton, Oregon 97008
(503) 906-9200
(503) 906-9210

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Michael Baker Jr., Inc.	**Date Sampled:**	6/25/2009 to 6/24/2009
Project:	Camp Bonneville Groundwater 110002 Task 6200	**Date Received:**	6/25/2009
Lab:	PSF0839		

SAMPLE RECEIPT: Samples were received intact, on ice, with chain of custody documentation. The sample temperature was measured at 3.4 °C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered.

QA/QC CRITERIA: No problems were encountered during sample analysis.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: 314.0_9196313 (Perchlorate) and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben

Estella Rieben
Project Manager

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 (503) 906-9210

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23LCMW03DW	PSF0839-01	Water	06/24/09 17:45	06/25/09 17:45
23LCMW03SW	PSF0839-02	Water	06/25/09 09:30	06/25/09 17:45
23LCMW02DW	PSF0839-03	Water	06/25/09 11:30	06/25/09 17:45
23LCMW02SW	PSF0839-04	Water	06/25/09 13:00	06/25/09 17:45
23LCMW01DW	PSF0839-05	Water	06/25/09 14:45	06/25/09 17:45
TB261	PSF0839-06	Water	06/25/09 00:00	06/25/09 17:45

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

July 28, 2009

TestAmerica Project Number: G9F270189
PO/Contract: PSF0839

Estella Rieben
TestAmerica Portland
Nimbus Corporate Center
9405 SW Nimbus Ave
Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on June 27, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver
Project Manager

Case Narrative

TestAmerica West Sacramento Project Number G9F270189

General Comments

One of the two bottles for sample PSF0839-01 was received broken. One of the two bottles for sample PSF0839-02 was received with a broken cap. The cap was replaced and this bottle was marked for backup use only.

WATER, 8330, Nitroaromatics & Nitramines
Samples: 1, 2, 3, 4, 5
The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for most analytes above the established control limits indicating a potential high bias in the data. These samples do not have detected concentrations above the reporting limit for these analytes and there is no adverse impact upon the data.

The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch also has recoveries and/or precision is outside the established control limits for many analytes. This anomaly is most likely matrix related.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G9F270189

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LFRD6	1	PSF0839-01	6/24/2009 05:45 PM	6/27/2009 10:00 AM
LFRD7	2	PSF0839-02	6/25/2009 09:30 AM	6/27/2009 10:00 AM
LFRD8	3	PSF0839-03	6/25/2009 11:30 AM	6/27/2009 10:00 AM
LFRD9	4	PSF0839-04	6/25/2009 01:00 PM	6/27/2009 10:00 AM
LFREA	5	PSF0839-05	6/25/2009 02:45 PM	6/27/2009 10:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave Beaverton OR 97008-7145 503-906-9200 FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #: PSF0839

CLIENT: Michael Baker Jr., Inc

REPORT TO: Margaret James

ADDRESS: 5261 Fountain Drive Ste A, Crown Point IN 46307

PHONE: 219 736 ... FAX: 219 755 ...

INVOICE TO: Baker

P.O. NUMBER: 11CCC.A T 6ACC.

PROJECT NAME: Camp Bonneville

PROJECT NUMBER: 11CCC.A T 6ACC.

SAMPLED BY: Margaret James

TURNAROUND REQUEST in Business Days*

Organic & Inorganic Analyses: 10 (STD.) 7 5 4 3 2 1 <1

Petroleum Hydrocarbon Analyses: 5 (STD.) 4 3 2 1 <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOCs 8260B	Explosive 8330	Perchlorate 314.1										MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
PRESERVATIVE			HCL	NA	NA													
1	23LCMW03DW	6/24/09-1745	X	X	X										W	6	No TICs	
2	23LCMW03SW	6/25/09-0930	X	X	X										W	6	No TICs	
3	23LCMW02DW	6/25/09-1130	X	X	X										W	6	No TICs	
4	23LCMW02SW	6/25/09-1300	X	X	X										W	6	No TICs	
5	23LCMW01DW	6/25/09-1445	X	X	X										W	6	No TICs	
6	TB261	6/25/09	X												W	1	No TICs	
7																		
8																		
9																		
10																		

RELEASED BY: [signature] PRINT NAME: M James	FIRM: Baker	DATE: 6/25/09 TIME: 1600	RECEIVED BY: [signature] PRINT NAME: Bob F	FIRM: TAP	DATE: 6/25/09 TIME: 16:2[illegible]
RELEASED BY: [signature] PRINT NAME: Bob F	FIRM: TAP	DATE: 6/25/09 TIME: 17:45	RECEIVED BY: PRINT NAME: Immanuel Ell[illegible]	FIRM: TAP	DATE: 6/25/0[illegible] TIME: 1745

ADDITIONAL REMARKS:

TEMP: 34

PAGE OF

TAL-1000(0408)

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0839 Date/Time Received: 4/25/09 1745

Client Name and Project: Michael Baker Camp Bonneville

Time Zone:

☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures: 3.4

Digi #1 ☐ Digi #2 ~~IR Gun~~ Raytek ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice

__Ice Melted

__W/in 4 Hrs of collection

__Other:

Initials: BLE

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD.
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Proper Container and preservatives used? If no, document on NOD.
☒	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	9. HF Dilution required?
	☒	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☒	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☒	☐	12. Is the "Sampled by" section of the COC completed?
☐	☒	☐	13. Were VOA/Oil Syringe samples without headspace?
☐	☒	☐	14. Were VOA vials preserved? ☒HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☒	15. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☒	☐	☐	19. Are analyses with short holding times received in hold?
	☒	☐	20. Was Standard Turn Around (TAT) requested?
	☒	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0839

Login Checks: Initials: PS

N/A	Yes	No	
	☒	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☒	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☒	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☒	☐	☐	25. Were special log in instructions read and followed?
	☒	☐	26. Were tests logged checked against the COC?
☒	☐	☐	27. Were rush notices printed and delivered?
☒	☐	☐	28. Were short hold notices printed and delivered?
☐	☒	☐	29. Were subcontract COCs printed?
☒	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks: Initials: MK

N/A	Yes	No	
☒	☒	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☒	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☒	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☒	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☒	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☐	☒	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

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THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT NAL - Portland PM LL LOG # 59241

LOT# (QUANTIMS ID) G9F270189 QUOTE# 83365 LOCATION W21C

	Initials	Date
DATE RECEIVED 6-27-09 TIME RECEIVED 1000	AK	6-27-09

DELIVERED BY
- ☑ FEDEX
- ☐ CA OVERNIGHT
- ☐ CLIENT
- ☐ AIRBORNE
- ☐ GOLDENSTATE
- ☐ DHL
- ☐ UPS
- ☐ BAX GLOBAL
- ☐ GO-GETTERS
- ☐ TAL COURIER
- ☐ VALLEY LOGISTICS
- ☐ MORGAN HILL COURIER
- ☐ OTHER

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A

CUSTODY SEAL #(S) 1047265

SHIPPPING CONTAINER(S) ☑ TAL ☐ CLIENT ☐ N/A

TEMPERTURE RECORD (IN °C) IR 4 ☐ 5 ☑ ☐ OTHER

COC #(S) MK

TEMPERATURE BLANK Observed: 0.2 Corrected:

SAMPLE TEMPERATURE

Observed: 0 1 1 Average: 1 Corrected Average: 1

COLLECTOR'S NAME: ☐ Verified from COC ☑ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A

LABELED BY

LABELS CHECKED BY

PEER REVIEW ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
- WETCHEM ☑ N/A
- VOA-ENCORES ☑ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A

☐ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☑ N/A

☑ CLOUSEAU ☑ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☐ N/A

☑ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☑ PM NOTIFIED

Notes: PSF 0839-01 - rec'd 1 of 2 AGB broken
cc -02 - rec'd 1 bottle cap broken, replaced, ice not
no nature on bottle.

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

Worksheets

HOLDING TIMES

SAMPLE DATE	SAMPLE ID	Portland LAB ID	Sacramento Lab ID	Matrix	Prep	Anal
06/24/09	23LCMW03DW	PSF0839-01	LFRD6	Aq	07/01/09	7/2/09 1X
06/25/09	23LCMW03SW	PSF0839-02	LFRD7	Aq	07/01/09	7/2/09 1X
06/25/09	23LCMW02DW	PSF0839-03	LFRD8	Aq	07/01/09	7/2/09 1X
06/25/09	23LCMW02SW	PSF0839-04	LFRD9	Aq	07/01/09	7/3/09 1X
06/25/09	23LCMW01DW	PSF0839-05	LFREA	Aq	07/01/09	7/3/09 1X

7	days from collection to extraction		
Sample Date	6/24/2009	Extract By	7/1/2009
40	days fromextraction to analysis		
Sample Date	7/1/2009	Extract By	8/10/2009

TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client?	No
Did Sample Form 1s match the target compound list	NA
Were required quantitation limits provided by the client?	No
Did all compounds meet the required quantitation limits?	NA

SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN 1		DF	ACTION
All IN					

Were surrogate RTs within windows established by the ICAL?	Yes
Were there any transcription errors between the raw data and Form 2?	No
Were laboratory acceptance limits used as the basis for validation?	30-150
Did the laboratory provide CLP Form II or equivlaent?	Yes

02DW

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	F1
34-DNT A			#DIV/0!	104
34-DNT C			#DIV/0!	

MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

Non-Client

LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LFW791	12 of 17 HI		NA	NA	none, ND

Were laboratory acceptance limits used as the basis for validation?	Yes
Did the laboratory provide CLP Form III or equivlaent?	Yes
Were chromatograms and quan reports present for all LCS/LCDs?	Yes

LFW791 RDX

12 of 17 HI	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	1.27	1	127.0	127

%R = (Amount Found/Amount Spiked)*100

BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION	
LFW791	135-TNBENZ	0.038	5	0.19	U at RL	ALL

NOTE Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

CALIBRATION

Initial

Are chromatograms and quan reports present for all ICAL standards?	Yes
Are CLP For VIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What linearity criteria was used?	20% RSD or 0.99
Were RT window documented?	Yes

Continuing

Are chromatograms and quan reports present for all CCV standards?	Yes
Are CLP Form VIIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What %D criteria was used?	25% D
Have all samples and standards been listed on an Analytical Sequence?	Yes
Was a proper analytical sequence followed?	Yes

INITIAL CALIBRATION - A

Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5.156
Instrument	A	Calcd Avg CF	77.892	Calcd %RSD	5.156
Compound	RDX				
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/Avg CF)*100	
		CF8	79.815		

CONTINUING CALIBRATION A

Date	7/2/2009		
Time	1709		
Instrument	A		
Compound	HMX		
Reported Conc	104.5	Rptd %D	5
Calculated Conc	210.182	Calcd %D	-5.09
Response	25432	ICAL CF	200
CF	121	CCV CF	210.2
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

FIELD DUPLICATES

COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD
PCA					#DIV/0!

NOTES Samples are not qualified on this basis.

COMPOUND IDENTIFICATION AND QUANTITATION

Has a F10 been completed for every sample containing positive results?	Yes
Was RT data presented on the form?	NA
Are RTs within the established winodws?	Yes
Any transcription or calculation errors?	No
Any false positives, negative peaks, shouldering, etc.?	No
Was GCMS confirmation needed for results > 10 µg/ml?	NA
Were percent differences or relative percent differences calculated?	NA
Are percent differences/RPDs greater than 25%?	NA
Are there any transcription errors?	No
Are Form1s present for all field and quality control samples?	No
Are chromatograms and quan reports present for all samples?	Yes
Are RLs adjusted to reflect sample dilutions, percent solids, etc.?	Yes
For soils, any precent solids <50%?	No
For soils, any precent solids <10%?	No

23L4MW01AW RDX 0.13 µg/L

	A	C
response	524	269
cf	77.89163	42.55812
final vol ml	20	20
initial L	1.02157	1.02157
df	1	1
calculated	0.1317	0.1237

PERCENT DIFFERENCE BETWEEN COLUMNS

SAMPLE	COMPOUND	A	C	RPD	QUALIFIER
23LCMW02DW	2-ntoluene	0.1953	not confirmed	#VALUE!	U at RL

Non-Client

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroglycerin	106	(85 - 115)			SW846 8330
	108	(85 - 115)	2.0	(0-15)	SW846 8330
PETN	110	(84 - 117)			SW846 8330
	111	(84 - 117)	0.90	(0-15)	SW846 8330
Picric Acid	70	(21 - 118)			SW846 8330
	99 p	(21 - 118)	35	(0-20)	SW846 8330
2-Amino-4,6-dinitrotoluene	125 a	(77 - 123)			SW846 8330
	129 a	(77 - 123)	3.4	(0-27)	SW846 8330
4-Amino-2,6-dinitrotoluene	116 a	(68 - 113)			SW846 8330
	120 a	(68 - 113)	3.0	(0-30)	SW846 8330
1,3-Dinitrobenzene	125 a	(72 - 123)			SW846 8330
	130 a	(72 - 123)	4.1	(0-29)	SW846 8330
2,4-Dinitrotoluene	120 a	(70 - 119)			SW846 8330
	124 a	(70 - 119)	2.9	(0-30)	SW846 8330
2,6-Dinitrotoluene	122 a	(71 - 119)			SW846 8330
	125 a	(71 - 119)	2.9	(0-29)	SW846 8330
HMX	118 a	(67 - 115)			SW846 8330
	120 a	(67 - 115)	1.4	(0-32)	SW846 8330
Nitrobenzene	121 a	(69 - 119)			SW846 8330
	124 a	(69 - 119)	2.5	(0-31)	SW846 8330
2-Nitrotoluene	117	(64 - 120)			SW846 8330
	113	(64 - 120)	2.7	(0-36)	SW846 8330
3-Nitrotoluene	113	(67 - 114)			SW846 8330
	115 a	(67 - 114)	2.0	(0-31)	SW846 8330
4-Nitrotoluene	114	(67 - 115)			SW846 8330
	116 a	(67 - 115)	2.3	(0-32)	SW846 8330
RDX	121	(68 - 122)			SW846 8330
	129 a	(68 - 122)	6.3	(0-32)	SW846 8330
Tetryl	102	(66 - 105)			SW846 8330
	106 a	(66 - 105)	4.2	(0-26)	SW846 8330
1,3,5-Trinitrobenzene	119	(74 - 120)			SW846 8330
	124 a	(74 - 120)	4.3	(0-29)	SW846 8330
2,4,6-Trinitrotoluene	113 a	(69 - 111)			SW846 8330
	117 a	(69 - 111)	3.4	(0-28)	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroglycerin	ND	4.91	5.19	ug/L	106		SW846 8330
	ND	4.92	5.29	ug/L	108	2.0	SW846 8330
PETN	ND	4.91	5.41	ug/L	110		SW846 8330
	ND	4.92	5.46	ug/L	111	0.90	SW846 8330
Picric Acid	ND	4.91	3.41	ug/L	70		SW846 8330
	ND	4.92	4.85	ug/L	99 p	35	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.982	1.22	ug/L	125 a		SW846 8330
	ND	0.983	1.26	ug/L	129 a	3.4	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.982	1.14	ug/L	116 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	3.0	SW846 8330
1,3-Dinitrobenzene	ND	0.982	1.23	ug/L	125 a		SW846 8330
	ND	0.983	1.28	ug/L	130 a	4.1	SW846 8330
2,4-Dinitrotoluene	ND	0.982	1.18	ug/L	120 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.9	SW846 8330
2,6-Dinitrotoluene	ND	0.982	1.19	ug/L	122 a		SW846 8330
	ND	0.983	1.23	ug/L	125 a	2.9	SW846 8330
HMX	ND	0.982	1.16	ug/L	118 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	1.4	SW846 8330
Nitrobenzene	ND	0.982	1.19	ug/L	121 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.5	SW846 8330
2-Nitrotoluene	ND	0.982	1.14	ug/L	117		SW846 8330
	ND	0.983	1.11	ug/L	113	2.7	SW846 8330
3-Nitrotoluene	ND	0.982	1.11	ug/L	113		SW846 8330
	ND	0.983	1.14	ug/L	115 a	2.0	SW846 8330
4-Nitrotoluene	ND	0.982	1.12	ug/L	114		SW846 8330
	ND	0.983	1.14	ug/L	116 a	2.3	SW846 8330
RDX	ND	0.982	1.19	ug/L	121		SW846 8330
	ND	0.983	1.27	ug/L	129 a	6.3	SW846 8330
Tetryl	ND	0.982	0.998	ug/L	102		SW846 8330
	ND	0.983	1.04	ug/L	106 a	4.2	SW846 8330
1,3,5-Trinitrobenzene	0.035	0.982	1.20	ug/L	119		SW846 8330
	0.035	0.983	1.26	ug/L	124 a	4.3	SW846 8330
2,4,6-Trinitrotoluene	ND	0.982	1.11	ug/L	113 a		SW846 8330
	ND	0.983	1.15	ug/L	117 a	3.4	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFW791AC Matrix.....: WATER
LCS Lot-Sample#: G9G010000-192
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroglycerin	107	(85 - 115)	SW846 8330
PETN	110	(84 - 117)	SW846 8330
Picric Acid	88	(21 - 118)	SW846 8330
2-Amino-4,6-dinitrotoluene	127 a	(77 - 123)	SW846 8330
4-Amino-2,6-dinitrotoluene	119 a	(68 - 113)	SW846 8330
1,3-Dinitrobenzene	128 a	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	123 a	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	125 a	(71 - 119)	SW846 8330
HMX	120 a	(67 - 115)	SW846 8330
Nitrobenzene	124 a	(69 - 119)	SW846 8330
2-Nitrotoluene	115	(64 - 120)	SW846 8330
3-Nitrotoluene	118 a	(67 - 114)	SW846 8330
4-Nitrotoluene	117 a	(67 - 115)	SW846 8330
RDX	127 a	(68 - 122)	SW846 8330
Tetryl	105	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	127 a	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	116 a	(69 - 111)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFW791AC Matrix.....: WATER
LCS Lot-Sample#: G9G010000-192
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroglycerin	5.00	5.35	ug/L	107	SW846 8330
PETN	5.00	5.52	ug/L	110	SW846 8330
Picric Acid	5.00	4.42	ug/L	88	SW846 8330
2-Amino-4,6-dinitrotoluene	1.00	1.27 a	ug/L	127	SW846 8330
4-Amino-2,6-dinitrotoluene	1.00	1.19 a	ug/L	119	SW846 8330
1,3-Dinitrobenzene	1.00	1.28 a	ug/L	128	SW846 8330
2,4-Dinitrotoluene	1.00	1.23 a	ug/L	123	SW846 8330
2,6-Dinitrotoluene	1.00	1.25 a	ug/L	125	SW846 8330
HMX	1.00	1.20 a	ug/L	120	SW846 8330
Nitrobenzene	1.00	1.24 a	ug/L	124	SW846 8330
2-Nitrotoluene	1.00	1.15	ug/L	115	SW846 8330
3-Nitrotoluene	1.00	1.18 a	ug/L	118	SW846 8330
4-Nitrotoluene	1.00	1.17 a	ug/L	117	SW846 8330
RDX	1.00	1.27 a	ug/L	127	SW846 8330
Tetryl	1.00	1.05	ug/L	105	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.27 a	ug/L	127	SW846 8330
2,4,6-Trinitrotoluene	1.00	1.16 a	ug/L	116	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

HPLC

Client Lot #...: G9F270189 Work Order #...: LFW791AA Matrix.....: WATER
MB Lot-Sample #: G9G010000-192

Prep Date.....: 07/01/09
Analysis Date..: 07/02/09 Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	0.039 J	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

QC DATA ASSOCIATION SUMMARY

G9F270189

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9182192	9182194
002	WATER	SW846 8330		9182192	9182194
003	WATER	SW846 8330		9182192	9182194
004	WATER	SW846 8330		9182192	9182194
005	WATER	SW846 8330		9182192	9182194

BI

TestAmerica West Sacramento
ESC-Extraction Master Sheet

Holding Time Due: 7/1/09 7/02/09 Project Due: 7/10/09 7/13/09

BATCH #: 9182192 Initiated By: TP Date: 7/01/09

Test #: 8330-L Extn Comp'd By: TP Date: 7/02/09

SOP No.: WS-LC-0009

EXTRACTION COMMENTS:

QC Code	Lab ID	Sample Size / Initial Mass	Final Volume / Final Mass	Difference in Mass
	MB	See weight Sheet		TP 7/02/09
C	LCS			
	G9F260326-01			
	G9F260326-02			
	G9F260326-03			
7/01/09	G9F260270189_01			
	G9F270189-02			
	G9F270189-03			
	G9F270189-04			
	G9F270189-05			
	G9F300242-01			
	G9F300242-02			
	G9F300242-03			
	G9F300242-04			
S	G9F300242-04MS			
D	G9F300242-04MSD			
	G9F300242-05			
	TP 7/02/09			

QC Codes	Standard Information: Volume	STD ID	Exp. Date	STD Name/Conc.	ppm/(ppb)
All	50uL	09GCSV0172	12/10/09	8330 Surr 50ug/mL	2.5
C,S,D	20uL	09GCSV0037	7/17/09	3,5 DNA 50ug/mL	1.0
C,S,D	100uL	09GCSV0149	11/1/09	NG/PETN 5ug/mL	5.0
C,S,D	100uL	09GCSV0039	7/17/09	Picric Acid 50ug/mL	5.0

Spiked By / Date: TP 7/01/09 Witnessed By / Date: ND 7-1-09

QC Codes: B = MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/02/09
Time: 11:49:39

LEV 1	LEV 2		LEV 1	LEV 2	
Y	–	Blank	Y	–	Weights/Volumes
Y	–	Check	Y	–	Spike & Surrogate Worksheet
Y	–	MS/MSD	Y	–	Vial contains correct volume
			–	–	Labels, greenbars, worksheets
			–	–	computer batch: correct & all match
			–	–	Anomalies to Extraction Method

– Expanded Deliverable
– COC Completed
Y Bench Sheet Copied
– Package Submitted to AnalyticalGroup
– Bench Sheet Copied per COC

Extractionist: 002448 Tuan Q. Phan

Concentrationist: 002448 Tuan Q. Phan

Reviewer/Date: PHANT / 7/02/09

****
* *
* QC BATCH: 9182192 *
* *
****

PREP DATE: 7/01/09 9:00
COMP DATE: 7/02/09 10:40

Nitroaromatics & Nitramines: Explosives (8330)
SOLID PHASE EXTRACTION (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH'S INIT	PH'S ADJ1	PH'S ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/01/09	7/10/09	G9F260326-001 LFQAK-1-AC		B7	A0	WATER	997.78mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/10/09	G9F260326-002 LFQAL-1-AC		B7	A0	WATER	991.12mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/10/09	G9F260326-003 LFQAM-1-AC		B7	A0	WATER	1009.82mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/13/09	G9F270189-001 LFRD6-1-AC		B7	A0	WATER	985.56mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-002 LFRD7-1-AC		B7	A0	WATER	999.12mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-003 LFRD8-1-AC		B7	A0	WATER	991.73mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-004 LFRD9-1-AC		B7	A0	WATER	996.78mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/02/09
Time: 11:49:39

****
* *
* QC BATCH: 9182192 *
* *
****

PREP DATE: 7/01/09 9:00
COMP DATE: 7/02/09 10:40

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH'S INIT	PH'S ADJ1	PH'S ADJ2	SOLVENTS EXTRACTION	VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/02/09	7/13/09	G9F270189-005 LFREA-1-AC		B7	A0	WATER	985.33mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-001 LFV9A-1-AC		B7	A0	WATER	1014.4mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-002 LFV9G-1-AC		B7	A0	WATER	975.28mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-003 LFV9J-1-AC		B7	A0	WATER	1018.21mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AC		B7	A0	WATER	1028.11mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AFS		B7	A0	WATER	1018.28mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AGD		B7	A0	WATER	1017.3mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-005 LFV9M-1-AC		B7	A0	WATER	1016.72mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	0/00/00	G9G010000-192 LFW79-1-AAB		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	0/00/00	G9G010000-192 LFW79-1-ACC		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															

.1% HOAC.ACN 2991-95F; .1%HOAC/H2O 2991-87B;FILTER MILLIPORE LOT R5PN29184
SPE COLUMN WATER LOT 003339084A; SODIUM CHLORIDE MALLINCKRODT LOT H07582
LCS,MS/MSD SPIKE 20UL-09GCSV0037;100UL-09GCSV0149;100UL-09GCSV0039

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Page# 36

Inst ID: LC10 Batch ID: 06102009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUN-2009	14:42	fhk	Blank	A-000001.	0 g	0 mL	1	
10-JUN-2009	15:33	fhk	STD_1 09GCSV0048 5.0/0/0/0ng/m	A-000002.	0 g	0 mL	1	
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049 10/20/10/10ng	A-000003.	0 g	0 mL	1	
10-JUN-2009	17:14	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000004.	0 g	0 mL	1	Bad Std
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051 50/100/50/50n	A-000005.	0 g	0 mL	1	
10-JUN-2009	18:56	fhk	STD_5 09CCSV0053 100/200/100/1	A-000006.	0 g	0 mL	1	
10-JUN-2009	19:46	fhk	STD_6 09GCSV0054 200/500/200/2	A-000007.	0 g	0 mL	1	
10-JUN-2009	20:37	fhk	STD_7 09GCSC0055 500/1000/500/	A-000008.	0 g	0 mL	1	
10-JUN-2009	21:28	fhk	STD_8 09CGSV0056 1000/2000/100	A-000009.	0 g	0 mL	1	
10-JUN-2009	22:18	fhk	Blank	A-000010.	0 g	0 mL	1	
10-JUN-2009	23:09	fhk	ICV_6 08GCSV0397 100/200/100/1	A-000011.	0 g	0 mL	1	
11-JUN-2009	00:00	fhk	STD_5 09CCSV0053 100/200/100/1	A-000012.	0 g	0 mL	1	
11-JUN-2009	00:50	fhk	Surrogate 100ng/mL	A-000013.	0 g	0 mL	1	
11-JUN-2009	12:56	fhk	Primer	A-000014.	0 g	0 mL	1	
11-JUN-2009	13:47	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000015.	0 g	0 mL	1	Re-injected New Std

6/11/09

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

Compound	5 000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200 000 Level 6	RRF	% RSD
	500.000 Level 7	1000 000 Level 8						
2 HMX	119	120	115	125	123	124		
	116	123					121	3.066
3 RDX	81.80000	75.90000	77.15000	80.72000	78 45000	80.13000		
	69.16800	79.81500					77.89163	5.156
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++ <-
5 Picric ACID	+++++	+++++	91.72000	85.68000	84.85500	84.88200		
	74.63400	74.87800					82.77483	8.120
6 1,3,5-Trinitrobenzene	161	146	145	150	147	148		
	136	147					148	4 610
7 1,3-Dinitrobenzene	145	142	138	142	139	142		
	128	141					140	3.715
8 3,5-Dinitroaniline	97.20000	90.80000	89 35000	91.80000	88.83000	90.35000		
	82.20800	89.25000					89.97350	4.581
9 TETRYL	97.60000	95.10000	77.40000	96.02000	94 31000	95 06000		
	92.43000	94.40900					92.79113	6.888

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
10 Nitrobenzene	63.80000	62.30000	56.55000	61.44000	61.06000	62.26000		
	56.02600	61.95700					60.67412	4.659
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	94.80000	90.20000	81.90000	88.78000	87.04000	87.55500		
	84.22200	87.17800					87.70937	4.401
13 4-AM-2,6-DNT	67.00000	63.30000	60.85000	63.26000	61.61000	62.67000		
	58.65400	61.14600					62.31125	3.901
14 2-AM-4,6-DNT	74.80000	75.80000	73.10000	75.54000	73.53000	74.39000		
	69.18400	72.13500					73.55987	2.932
15 2,6-Dinitrotoluene	57.60000	53.30000	51.90000	53.68000	53.03000	53.21500		
	50.43000	52.74900					53.23800	3.835
16 2,4-Dinitrotoluene	93.00000	86.50000	82.60000	86.20000	84.72000	85.49000		
	81.43200	85.05700					85.62488	4.031
17 2-Nitrotoluene	40.80000	37.40000	33.20000	35.64000	35.21000	35.77500		
	33.97400	35.45000					35.93113	6.486
18 4-Nitrotoluene	48.00000	46.40000	40.75000	43.56000	43.22000	43.56500		
	41.67600	43.21300					43.79800	5.390
19 3-Nitrotoluene	47.00000	44.60000	39.85000	43.24000	42.93000	43.08000		
	41.51600	42.82400					43.13000	4.852
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	50.10000	46.40000	46.48000	45.87000	46.85500		
	46.08000	48.38600					47.16729	3.251

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
2 HMX	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
3 RDX	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
4 EGDN	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
5 Picric ACID	*****	134	126	125	125	110		
	110						122	8.080
6 1,3,5-Trinitrobenzene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
7 1,3-Dinitrobenzene	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
8 3,5-Dinitroaniline	*****	*****	*****	*****	*****	*****		
	*****						*****	*****
9 TETRYL	*****	*****	*****	*****	*****	*****		
	*****						*****	*****

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\833
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	___ RRF	% RSD
10 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Nitroglycerin	+++++	61.25000	59.82000	60.58000	61.86500	59.75400	61.73900	60.83467	1.527
12 2,4,6-Trinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4-AM-2,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 2-AM-4,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 2-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 3-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 PETN	+++++	32.65000	30.36000	31.91000	32.25000	32.38000	32.75200	32.05033	2.748

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
$ 1 3,4-Dinitrotoluene	++++++	90.40000	88.76000	88.28000	90.51000	88.03667		
	93.14200						89.85478	2.142

* Level 2 dropped due to poor integration
6/12/09

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 6/10/2009 23:09 Operator: hk

DataFile: LC10\06102009 B\A-000011.D Vial Num: 20

Instrument ID: LC10

Method 8330 Target Analyte Results

Sample: **ICV_6 08GCSV0397 100/200/100/100ng/mL**

Method File: LC10\06102009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 100/200/100/100ng/mL;2

Misc. Info: ;6; ; ; ;3;CAL sub; ;0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	~~Fails~~	Not in Mix				200	-100%	Fails		(±15)	
HMX	5.29	26153	216.4000<	200	8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.84	16084	206.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.00	41754	504.4000 ✓	500	1%	Acceptable		9.00	61509	505.5000< ✓	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.25	27834	199.2000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.30	17776	191.6000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000< ✓	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.28	10445	196.2000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.00	16653	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.49	8451	195.9000< ✓	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206.3000< ✓	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.10	5839	181.9000< ✓	200	-9%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 6/11/2009 3:26 PM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07022009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
02-JUL-2009	15:27	fhk	Primer	A-000001.	0 g	0 mL	1	
02-JUL-2009	16:18	fhk	Primer	A-000002	0 g	0 mL	1	
02-JUL-2009	17:09	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000003	0 g	0 mL	1	
02-JUL-2009	18:00	fhk	LFW791AA 9182192 G9G010000-192	A-000004	1000 mL	20 mL	1	
02-JUL-2009	18:50	fhk	LFW791AC 9182192 G9G010000-192	A-000005.	1000 mL	20 mL	1	
02-JUL-2009	19:40	fhk	LFQAK1AC 9182192 G9F260326-1 1	A-000006.	997 78 mL	20 mL	1	
02-JUL-2009	20:31	fhk	LFQAL1AC 9182192 G9F260326-2 1	A-000007.	991 12 mL	20 mL	1	
02-JUL-2009	21:22	fhk	LFQAM1AC 9182192 G9F260326-3 1	A-000008.	1009 82 mL	20 mL	1	
02-JUL-2009	22:13	fhk	LFRD61AC 9182192 G9F270189-1 1	A-000009.	985.56 mL	20 mL	1	
02-JUL-2009	23:03	fhk	LFRD71AC 9182192 G9F270189-2 1	A-000010.	999.12 mL	20 mL	1	
02-JUL-2009	23:54	fhk	LFRD81AC 9182192 G9F270189-3 1	A-000011.	991 73 mL	20 mL	1	
03-JUL-2009	00:45	fhk	STD_5 09GCSV0053 .2K/.1/.1/.1/	A-000012.	0 g	0 mL	1	
03-JUL-2009	01:36	fhk	LFRD91AC 9182192 G9F270189-4 1	A-000013.	996.78 mL	20 mL	1	
03-JUL-2009	02:27	fhk	LFREA1AC 9182192 G9F270189-5 1	A-000014.	985.33 mL	20 mL	1	
03-JUL-2009	03:17	fhk	LFV9A1AC 9182192 G9F300242-1 1	A-000015.	1014.4 mL	20 mL	1	
03-JUL-2009	04 07	fhk	LFV9G1AC 9182192 G9F300242-2 1	A-000016.	975 28 mL	20 mL	1	
03-JUL-2009	04:58	fhk	LFV9J1AC 9182192 G9F300242-3 1	A-000017.	1018 21 mL	20 mL	1	
03-JUL-2009	05.49	fhk	LFV9K1AC 9182192 G9F300242-4 1	A-000018.	1028.11 mL	20 mL	1	
03-JUL-2009	06.39	fhk	LFV9K1AF 9182192 G9F300242-4 S	A-000019.	1018.28 mL	20 mL	1	
03-JUL-2009	07.30	fhk	LFV9K1AG 9182192 G9F300242-4 D	A-000020	1017.3 mL	20 mL	1	
03-JUL-2009	08:20	fhk	LFV9M1AC 9182192 G9F300242-5 1	A-000021	1016.72 mL	20 mL	1	
03-JUL-2009	09 11	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000022	0 g	0 mL	1	
03-JUL-2009	10:01	fhk	09GCSV0234 LEVEL 1	A-000023	0 g	0 mL	1	
03-JUL-2009	10.52	fhk	09GCSV0235 LEVEL 2	A-000024	0 g	0 mL	1	
03-JUL-2009	11:42	fhk	09GCSV0236 LEVEL 3	A-000025	0 g	0 mL	1	
03-JUL-2009	12:33	fhk	09GCSV0237 LEVEL 4	A-000026.	0 g	0 mL	1	
03-JUL-2009	13:23	fhk	09GCSV0238 LEVEL 5	A-000027	0 g	0 mL	1	
03-JUL-2009	14:14	fhk	09GCSV0239 LEVEL 5	A-000028	0 g	0 mL	1	
03-JUL-2009	15:04	fhk	09GCSV0240 LEVEL 6	A-000029	0 g	0 mL	1	
03-JUL-2009	15:55	fhk	09GCSV0241 LEVEL 7	A-000030.	0 g	0 mL	1	
03-JUL-2009	16:45	fhk	09GCSV0242 LEVEL 8	A-000031	0 g	0 mL	1	
03-JUL-2009	17:36	fhk	09GCSV0243 MRL	A-000032.	0 g	0 mL	1	

TestAmerica West Sacramento

A-000003.D

Chromatography Summary

Injection Date: 7/2/2009 17 09 Operator: fhk

DataFile: LC10.I\07022009.B\A-000003.D Vial Num: 2

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Method File: LC10 I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Misc. Info: ,6, , : ,3,CAL.sub, ,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 20	9636	204 3000<	200	2%	Acceptable		18.20	18445	213 4000	200	7%	Acceptable		(±15)	
HMX	5 29	25432	210 5000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7 85	16295	209.2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8 99	41811	505 1000	500	1%	Acceptable		8 99	61520	505 6000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	30367	205 7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 26	29099	208.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 32	19114	206 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.19	12872	212.1000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.55	18075	206 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.55	12873	206.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.61	15046	204.5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20 34	10970	206 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21 06	17567	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24 79	7368	205.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26 61	8982	205 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.64	8962	207 8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.81	12531	206.0000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 22	6862	214 1000<	200	7%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.01	18502	205.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes. M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

A-000012.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 0:45 Operator: fhk

DataFile: LC10 I\07022009.B\A-000012 D Vial Num: 3

Instrument ID: LC10

Sample: STD_5 09GCSV0053 .2K/.1/.1/.1/.1

Method File: LC10 I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_5 09GCSV0053 .2K/.1/.1/.1/.1;2

Misc. Info: ,5;;,,3;CAL sub, ;0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 21	4770	101 1000<	100	1%	Acceptable		18 21	9105	105 3000	100	5%	Acceptable		(±15)	
HMX	5.29	12664	104.8000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7 86	8028	103 1000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9 05	16980	205.1000	200	3%	Acceptable		9 05	25011	205 5000<	200	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.21	15116	102.4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.27	14453	103 5000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14.34	9510	102 5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15 20	6322	104.2000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.57	9018	102 8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 56	6403	102.8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.63	7508	102 1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.35	5455	102.5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21 08	8726	101.9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.79	3635	101.2000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26 61	4448	101 6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28 63	4394	101 9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15 82	6254	102 8000<	100	3%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30 25	3304	103 1000<	100	3%	Acceptable		(±15)	45
3,5-Dinitroaniline	14 02	9179	102 0000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

A-000022.D

Chromatography Summary

Injection Date: 7/3/2009 9 11 Operator: fhk

DataFile: LC10 I\07022009 B\A-000022 D Vial Num: 4

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **STD_6 09GCSV0054 .4K/.2/.2/.2/.2**

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 4K/ 2/ 2/.2/ 2;2

Misc. Info: ;6, : : ;3;CAL sub, ,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 24	9589	203 3000<	200	2%	Acceptable		18 23	18290	211.6000	200	6%	Acceptable		(±15)	
HMX	5.30	25440	210.6000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.87	16268	208 8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9 04	42655	515.3000	500	3%	Acceptable		9 04	62723	515 5000<	500	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10 22	30282	205 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.29	28991	207.5000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 35	19191	206 8000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15 21	12738	209.9000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.58	18022	205 5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 58	12828	205.9000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18 65	15059	204 7000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.38	10882	204 4000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21 10	17483	204.2000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.82	7294	203 0000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.64	8876	202.6000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.67	8836	204 9000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15 84	12481	205.2000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 27	6681	208 4000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.03	18458	205 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

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23LCMW03DW

TestAmerica West Sacramento

A-000009.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/2/2009 22 13 Operator: ftk

DataFile: LC10 B\07022009 B\A-000009 D Vial Num: 16

Instrument ID: LC10

Sample : **LFRD61AC 9182192 G9F270189-1 1X**

Method File: LC10.B\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	985.56 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFRD61AC 9182192 G9F270189-1 1X,0,

Misc. Info: .,985.56,,20,1,WATER sub,,0,1,LFRD61AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	13.26	0.020	6229	2.6800<		18.25	0.014	11996	2.8160		0.0000	0.00	
HMX											0 0274	0 10	
RDX											0 0660	0 10	
Picric ACID											0 1268	1.01	
1,3,5-Trinitrobenzene	10 14	-0 090	256	0 0352<							0 0315	0 10	45
1,3-Dinitrobenzene											0 0507	0 10	
TETRYL											0 0507	0 10	
Nitrobenzene											0 0507	0 10	
2,4,6-Trinitrotoluene											0 0244	0.10	
4-AM-2,6-DNT											0.0223	0 10	
2-AM-4,6-DNT											0 1015	0 20	
2,6-Dinitrotoluene											0 0507	0 10	
2,4 Dinitrotoluene											0.0507	0 10	
2-Nitrotoluene											0 0731	0.51	
4-Nitrotoluene											0 0731	0 51	
3-Nitrotoluene											0 0629	0 51	
Nitroglycerin											0.3348	0.66	
PETN											0 3044	0 66	
3,5-Dinitroaniline											0 0254	1 01	

ND

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5366	2.6800	106	2.5366	2.8160	111	(79-111)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

23LCMW035W

TestAmerica West Sacramento

A-000010.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/2/2009 23 03 Operator: fnk

DataFile: LC10 I\07022009 B\A-000010 D Vial Num: 17

Instrument ID: LC10

Sample : **LFRD71AC 9182192 G9F270189-2 1X**

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	999.12 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:

Samp. Info: LFRD71AC 9182192 G9F270189-2 1X,0,

Misc. Info: ,,999 12;,20,1,WATER sub;,0.1,LFRD71AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.25	0.017	6242	2.6490<		18.25	0.010	11999	2.7780		0.0000	0.00	
HMX											0 0270	0.10	
RDX											0 0651	0 10	
Picric ACID											0 1251	1.00	
1,3,5-Trinitrobenzene	10.12	-0 103	275	0 0373<							0 0310	0 10	45
1,3-Dinitrobenzene											0 0500	0.10	
TETRYL											0 0500	0.10	
Nitrobenzene											0 0500	0 10	
2,4,6-Trinitrotoluene											0 0240	0 10	
4-AM-2,6-DNT											0 0220	0.10	
2-AM-4,6-DNT											0 1001	0.20	
2,6 Dinitrotoluene											0 0500	0.10	
2,4 Dinitrotoluene											0.0500	0 10	
2-Nitrotoluene											0 0721	0.50	
4-Nitrotoluene											0.0721	0 50	
3-Nitrotoluene											0 0621	0.50	
Nitroglycerin											0 3303	0 65	
PETN											0 3003	0.65	
3,5-Dinitroaniline											0 0250	1 00	

ND

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5022	2.6490	106		2.5022	2.7780	111	(79-111)

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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23LC MW020W

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/2/2009 23 54 Operator: fhk

DataFile: LC10 I\07022009 B\A-000011 D Vial Num: 18

Instrument ID: LC10

Sample : **LFRD81AC 9182192 G9F270189-3 1X**

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	991.73 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:

Samp. Info: LFRD81AC 9182192 G9F270189-3 1X;0;

Misc. Info: ,,991.73;;20,1,WATER sub,;0 1,LFRD81AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	-0.013	6156	2.6320<		18.23	-0.016	12094	2.8210		0.0000	0.00	
HMX											0 0272	0 10	
RDX											0 0655	0.10	
Picric ACID											0 1260	1 01	
1,3,5-Trinitrobenzene	10.16	-0 073	248	0 0339<							0 0313	0 10	45
1,3-Dinitrobenzene											0 0504	0 10	
TETRYL											0.0504	0 10	
Nitrobenzene											0 0504	0 10	
2,4,6-Trinitrotoluene											0 0242	0.10	
4 AM-2,6-DNT											0 0222	0 10	
2-AM-4,6-DNT											0 1008	0 20	
2,6-Dinitrotoluene											0 0504	0 10	
2,4-Dinitrotoluene											0 0504	0 10	
2-Nitrotoluene	24 84	0 011	348	0.1953<							0.0726	0.50	45
4-Nitrotoluene											0 0726	0 50	
3-Nitrotoluene											0.0625	0.50	
Nitroglycerin											0 3328	0 66	
PETN											0.3025	0.66	
3,5-Dinitroaniline											0 0252	1.01	

not confirmed

U

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5208	2.6320	104	2.5208	2.8210	112	(79-111)

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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234(MW025W)

TestAmerica West Sacramento

A-000013.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 1:36 Operator: fnk
DataFile: LC10 I\07022009 B\A-000013 D Vial Num: 19
Instrument ID: LC10

Sample: **LFRD91AC 9182192 G9F270189-4 1X**

Method File: LC10 I\07022009.B\8330AB.M
Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13.47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	996.78 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:
Samp. Info: LFRD91AC 9182192 G9F270189-4 1X,0,
Misc. Info: ,;996.78,;20,1;WATER sub;;0;1;LFRD91AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	0.017	6192	2.6340<		18.23	-0.010	11918	2.7660		0.0000	0.00	
HMX											0 0271	0 10	
RDX											0 0652	0 10	
Picric ACID											0 1254	1 00	
1 3,5-Trinitrobenzene	10 13	-0 086	271	0.0368<							0 0311	0 10	45
1,3-Dinitrobenzene											0 0502	0 10	
TETRYL											0 0502	0.10	
Nitrobenzene											0 0502	0 10	
2,4,6-Trinitrotoluene											0 0241	0 10	
4 AM-2,6-DNT											0 0221	0 10	
2-AM-4,6-DNT											0 1003	0 20	
2,6-Dinitrotoluene											0 0502	0 10	
2,4-Dinitrotoluene											0.0502	0 10	
2-Nitrotoluene											0 0722	0 50	
4-Nitrotoluene											0 0722	0.50	
3-Nitrotoluene											0.0622	0.50	
Nitroglycerin											0 3311	0 65	
PETN											0 3010	0 65	
3,5-Dinitroaniline											0.0251	1.00	

ND

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5081	2.6340	105	2.5081	2.7660	110	(79-111)

Notes. M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

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23LCMW3 (DW)

TestAmerica West Sacramento

A-000014.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 2 27 Operator: fhk

DataFile: LC10 B\07022009 B\A-000014.D Vial Num: 20

Instrument ID: LC10

Sample : **LFREA1AC 9182192 G9F270189-5 1X**

Method File: LC10 B\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	985.33 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFREA1AC 9182192 G9F270189-5 1X,0,

Misc. Info: ,,985.33,,20.1,WATER sub,,0;1:LFREA1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4 Dinitrotoluene	18.25	0.034	6173	2.6560<		18.24	0.003	11870	2.7870		0.0000	0.00	
HMX											0 0274	0.10	
RDX											0.0660	0.10	
Picric ACID											0 1269	1 01	
1,3,5-Trinitrobenzene	10 13	-0.086	274	0 0377<							0 0315	0 10	45
1,3-Dinitrobenzene											0 0507	0 10	
TETRYL											0 0507	0.10	
Nitrobenzene											0 0507	0 10	
2,4,6-Trinitrotoluene								ND			0 0244	0.10	
4 AM-2,6-DNT											0 0223	0.10	
2-AM-4,6-DNT											0 1015	0.20	
2,6-Dinitrotoluene											0.0507	0.10	
2,4-Dinitrotoluene											0.0507	0.10	
2-Nitrotoluene											0 0731	0 51	
4-Nitrotoluene											0 0731	0.51	
3-Nitrotoluene											0 0629	0 51	
Nitroglycerin											0 3349	0 66	
PETN						30 09	-0 166	Qualify 536	0 3394< ND		0 3045	0.66	45
3,5-Dinitroaniline									7/7/09		0 0254	1.01	

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5372	2.6560	105		2.5372	2.7870	110	(79-111)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Data Validation Report

Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0891

ECT.CON INC.

Environmental and Computer
Technology Consultants

3531 Fox Chase Drive
Imperial, PA 15126
(724) 695-8042
FAX (724) 695-2698
e-mail: ectconinc@comcast.net

Data Validation Report

SDG#	PSF0891
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Date Sampled	Location	Portland ID	Sacramento ID	Explosives	Matrix
06/25/09	23LCMW01SW	PSF0891-01	LFV9A	X	Aqueous
06/25/09	23LF4MW17SW	PSF0891-02	LFV9G	X	Aqueous
06/25/09	23LF4MW18SW	PSF0891-03	LFV9J	X	Aqueous
06/26/09	23LF4MW7B	PSF0891-04	LFV9K	X	Aqueous
06/26/09	23LF4MW5A	PSF0891-05	LFV9M	X	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

SUMMARY

The sample set for the Camp Bonneville site consists of five aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

* • Data Completeness
* • Holding Times
* • Calibration (Initial and Continuing)
• Blanks
* • System Monitoring Compounds (Surrogate Spikes)
* • Matrix Spike/Matrix Spike Duplicates
• Laboratory Control Standard Results
* • Target Compound Identification
* • Compound Quantification and Reported Contract Quantitation Limits

* • System Performance

* Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

FINDINGS

1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum Concentration (ppb)	Action Limit (ppm)	Action
LFW791	1,3,5-Trinitrobenzene	0.039	0.195	U sample results < RL

RL - reporting limit

2. Laboratory Control Sample Results

Recovery of HMX (120%) and RDX (127%) exceeded the laboratory's upper quality control limits. In the following sample, positive results for HMX and RDX were qualified as estimated "J".

23LF4MW5A

NOTES

Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was performed on sample 23LF4MW7B. Recovery of 13 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the unspiked sample. Data were not qualified on this basis.

Laboratory Control Sample Results

Recovery of 12 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

Field Duplicate Results

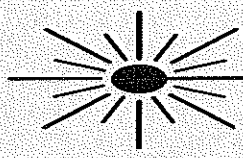
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer

8/17/09
Date

Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



ECT.CON INC.

Environmental and Computer
Technology Consultants

Annotated Form 1's
(Spreadsheet)

TestAmerica Portland

Client Sample ID: PSF0891-01

HPLC 23LC MW01SW

Lot-Sample #...: G9F300242-001 Work Order #...: LFV9A1AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.098
4-Amino-2,6-dinitrotoluene	ND	0.098	ug/L	0.022
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	ND	0.098	ug/L	0.026
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ND	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	ND	0.098	ug/L	0.064
Tetryl	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	~~0.032 J,B~~	0.098	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

8/6/09

TestAmerica Portland

Client Sample ID: PSF0891-02

HPLC 23LF4-MW178W

Lot-Sample #...: G9F300242-002 Work Order #...: LFV9G1AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 1.02 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.66	ug/L	0.15
PETN	ND	0.66	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.13
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.051
2,4-Dinitrotoluene	ND	0.10	ug/L	0.051
2,6-Dinitrotoluene	ND	0.10	ug/L	0.051
HMX	ND	0.10	ug/L	0.028
Nitrobenzene	ND	0.10	ug/L	0.051
2-Nitrotoluene	ND	0.41	ug/L	0.073
3-Nitrotoluene	ND	0.41	ug/L	0.063
4-Nitrotoluene	ND	0.51	ug/L	0.073
RDX	ND	0.10	ug/L	0.066
Tetryl	ND	0.10	ug/L	0.051
1,3,5-Trinitrobenzene	~~0.035 J,B~~	**0.10** U	**ug/L**	**0.032**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	105	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

8/6/09

TestAmerica Portland

Client Sample ID: PSF0891-03

HPLC 23LF4MW185W

Lot-Sample #...: G9F300242-003 Work Order #...: LFV9J1AC Matrix.....: WATER
Date Sampled...: 06/25/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.098
4-Amino-2,6-dinitrotoluene	ND	0.098	ug/L	0.022
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	ND	0.098	ug/L	0.026
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ND	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	ND	0.098	ug/L	0.064
Tetryl	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	~~0.037 J,B~~	**0.098** U	**ug/L**	**0.030**
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	103	(79 - 111)

NOTE(S):

J Estimated result Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

WK 8/6/09

TestAmerica Portland

Client Sample ID: PSF0891-04

HPLC 23LF4 MW7B

Lot-Sample #...: G9F300242-004 Work Order #...: LFV9K1AC Matrix.....: WATER
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.97 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.19	ug/L	0.097
4-Amino-2,6-dinitrotoluene	ND	0.097	ug/L	0.021
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	ND	0.097	ug/L	0.026
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	ND	0.097	ug/L	0.063
Tetryl	ND	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	~~0.035 J,B~~	0.097 U	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	98	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

TestAmerica Portland

Client Sample ID: PSF0891-05

HPLC 23LF4MW5A

Lot-Sample #...: G9F300242-005 Work Order #...: LFV9M1AC Matrix.....: WATER
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.098
4-Amino-2,6-dinitrotoluene	ND	0.098	ug/L	0.022
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	**0.25 J**	**0.098**	**ug/L**	**0.026**
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ND	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	**4.1 J**	**0.098**	**ug/L**	**0.064**
Tetryl	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	~~**0.038 J,B**~~	**0.098 U**	**ug/L**	**0.030**
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024

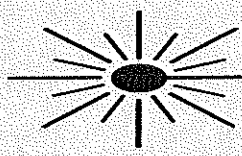
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	105	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WK 8/6/09



ECT.CON INC.

Environmental and Computer
Technology Consultants

Support Documentation

Laboratory Case Narrative

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc.
James D. Peyton
5261 Fountain Drive, Suite A
Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater
Client Project Number: 110002 Task 6200

TA Work Order#: PSF0891

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

187

July 31, 2009

TestAmerica - Portland
9405 S. W. Nimbus Avenue
Beaverton, Oregon 97008
(503) 906-9200
(503) 906-9210

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Michael Baker Jr., Inc.	**Date Sampled:**	6/25/2009 to 6/26/2009
Project:	Camp Bonneville Groundwater 110002 Task 6200	**Date Received:**	6/26/2009
Lab:	PSF0891		

SAMPLE RECEIPT: Samples were received intact, on ice, with chain of custody documentation. The sample temperature was measured at 0.2 and 2.0 °C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered.

QA/QC CRITERIA: 1,2,3-Trichlorobenzene was detected at a concentration less than the MRL but greater than one-half of the MRL in the associated method blank (9070189-BLK1) for EPA 8260B samples PSF0891-02, PSF0891-03, and PSF0891-04. The concentration for the specified analyte in all client samples was ND.

OBSERVATIONS: EPA 8260B sample PSF0891-01was prepared in batch 9070189, analyzed on 07/08/09, but was not reported due to suspected contamination caused by carry-over from a previously analyzed sample. The specified sample was re-prepared in batch 9070249, designated "RE1," analyzed on 07/09/09, and reported.

SUBCONTRACTED: 314.0_9196313 (Perchlorate), 314.0_9196314 (Perchlorate), and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as Appendix A.

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 (503) 906-9210

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 13:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23LCMW01SW	PSF0891-01	Water	06/25/09 16:30	06/26/09 16:50
23LF4MW17SW	PSF0891-02	Water	06/25/09 18:00	06/26/09 16:50
23LF4MW18SW	PSF0891-03	Water	06/25/09 19:00	06/26/09 16:50
23LF4MW7B	PSF0891-04	Water	06/26/09 10:30	06/26/09 16:50
23LF4MW5A	PSF0891-05	Water	06/26/09 13:45	06/26/09 16:50
TB261	PSF0891-06	Water	06/26/09 00:00	06/26/09 16:50

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

July 28, 2009

TestAmerica Project Number: G9F300242
PO/Contract: PSF0891

Estella Rieben
TestAmerica Portland
Nimbus Corporate Center
9405 SW Nimbus Ave
Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on June 30, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver

Linda C. Laver
Project Manager

Case Narrative

TestAmerica West Sacramento Project Number G9F300242

WATER, 8330, Nitroaromatics & Nitramines
Samples: 1, 2, 3, 4, 5
The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for most analytes above the established control limits indicating a potential high bias in the data. Samples 1, 2, 3, and 4 do not have detected concentrations above the reporting limit for these analytes and there is no adverse impact upon the data. Sample 5 does have detected concentrations for HMX and RDX. This was not discovered until after the recommended hold time for extraction had expired. After consulting with Ms. Rieben, the sample was not re-extracted and the analytical results are included in this report.

The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch also has recoveries and/or precision is outside the established control limits for many analytes. This anomaly is most likely matrix related.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G9F300242

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LFV9A	1	PSF0891-01	6/25/2009 04:30 PM	6/30/2009 09:00 AM
LFV9G	2	PSF0891-02	6/25/2009 06:00 PM	6/30/2009 09:00 AM
LFV9J	3	PSF0891-03	6/25/2009 07:00 PM	6/30/2009 09:00 AM
LFV9K	4	PSF0891-04	6/26/2009 10:30 AM	6/30/2009 09:00 AM
LFV9M	5	PSF0891-05	6/26/2009 01:45 PM	6/30/2009 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244
11922 E. First Ave, Spokane, WA 99206-5302
425-420-9200 FAX 420-9210
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: PSF0891

CLIENT: Michael Baker Jr, Inc

REPORT TO: Margaret James

ADDRESS: 9261 Fountain Drive, Suite A
Clear Point IN 46307

PHONE: 219 736 [illegible] FAX: 219-7[illegible]

INVOICE TO: Baker

P.O. NUMBER: 116CC02 T [illegible]

PROJECT NAME: Camp Bonneville

PROJECT NUMBER: 116CC02 T [illegible]

SAMPLED BY: Margaret James

PRESERVATIVE: HCL | N/A | N/A

REQUESTED ANALYSES: VOCs - NO TICs (EPA 8260 Extensive) | 8330 | Perchlorate 314.1

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	23LCMW01SW	6/25/09 - 1630	W	6	NO TICS	
2	23LF4MW17SW	6/25/09 1800	W	6	No TICS	
3	23LF4MW18SW	6/25/09 1900	W	6	No TICs	
4	23LF4MW07B	6/26/09 1030	W	[redacted]		
5	23LF4MW05A	6/26/09	W	6	No TICS	
6	TB2601	6/26/09	W	1	No TICS	
7						
8						
9						
10						

MS MSD

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD | 4 | 3 | 2 | 1 | <1

OTHER Specify:

*Turnaround Requests less than standard may incur Rush Charges.

RELEASED BY: PRINT NAME: Margaret C James Baker FIRM: TAP — DATE: 6/26/09 TIME: 1500

RECEIVED BY: PRINT NAME: Bob F — FIRM: TAP — DATE: 6/26/09 TIME: 15:40

RELEASED BY: PRINT NAME: Bob F — FIRM: TAP — DATE: 6-26-9 TIME: 16:50

RECEIVED BY: PRINT NAME: Jeff Siefried PM — FIRM: — DATE: 6/26/09 TIME: 1650

ADDITIONAL REMARKS:

TEMP: 6.2 2.0

PAGE OF

TAL-1000(0408)

4 of 187

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0891 Date/Time Received: 4/20/09 1650

Client Name and Project: Michael Baker – Camp Bonneville GW

Time Zone:
☐EDT/EST ☐CDT/CST ☐MDT/MST ☐PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): 1 1

Temperatures: 0.2 2.6

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice
__Ice Melted
__W/in 4 Hrs of collection
__Other:

Initials: PS

N.A	Yes	No	
☐	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☐	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☑	☐	3. Chain of Custody present? If no, document on NOD.
	☑	☐	4. Bottles received intact? If no, document on NOD.
	☑	☐	5. Sample is not multiphasic? If no, document on NOD.
	☑	☐	6. Proper Container and preservatives used? If no, document on NOD.
☐	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☐	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☐	☐	☐	9. HF Dilution required?
	☑	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☑	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☑	☐	12. Is the "Sampled by" section of the COC completed?
☐	☑	☐	13. Were VOA/Oil Syringe samples without headspace?
☐	☑	☐	14. Were VOA vials preserved? ☑HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☑	15. Did samples require preservation with sodium thiosulfate?
☐	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☐	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☐	☑	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☐	☐	☐	19. Are analyses with short holding times received in hold?
	☑	☐	20. Was Standard Turn Around (TAT) requested?
	☑	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0891

Login Checks: Initials: BLE

N/A	Yes	No	
	☒	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☒	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☒	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☐	☒	☐	25. Were special log in instructions read and followed?
	☒	☐	26. Were tests logged checked against the COC?
☒	☐	☐	27. Were rush notices printed and delivered?
☒	☐	☐	28. Were short hold notices printed and delivered?
☐	☒	☐	29. Were subcontract COCs printed?
☒	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks: Initials: PS

N/A	Yes	No	
☐	☒	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☐	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☑	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☐	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☐	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☐	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

TestAmerica
THE LEADER IN ENVIRONMENTAL TEST NG

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL - Portland PM U LOG # 59265

LOT# (QUANTIMS ID) G9F300242 QUOTE# 83365 LOCATION W1B

	Initials	Date
DATE RECEIVED 6/30/09 TIME RECEIVED 0900	CV	6/30/09

DELIVERED BY
- [x] FEDEX
- [ ] CA OVERNIGHT
- [ ] CLIENT
- [ ] AIRBORNE
- [ ] GOLDENSTATE
- [ ] DHL
- [ ] UPS
- [ ] BAX GLOBAL
- [ ] GO-GETTERS
- [ ] TAL COURIER
- [ ] VALLEY LOGISTICS
- [ ] MORGAN HILL COURIER
- [ ] OTHER

CUSTODY SEAL STATUS [x] INTACT [ ] BROKEN [ ] N/A

CUSTODY SEAL #(S) 204315, 204295

SHIPPPING CONTAINER(S) [x] TAL [ ] CLIENT [ ] N/A

TEMPERTURE RECORD (IN °C) IR 4 [ ] 5 [x] [ ] OTHER

COC #(S)

TEMPERATURE BLANK Observed: 2 Corrected: 2

SAMPLE TEMPERATURE 06/30/09

Observed: 2 1 1 Average: 1 Corrected Average: 1

COLLECTOR'S NAME: 2 3 4 3 [ ] Verified from COC [x] Not on COC

pH MEASURED [ ] YES [ ] ANOMALY [x] N/A

LABELED BY

LABELS CHECKED BY

PEER REVIEW [x] NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
- WETCHEM [x] N/A
- VOA-ENCORES [x] N/A

[ ] METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL [x] N/A

[ ] COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES [x] N/A

[x] CLOUSEAU [x] TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 [ ] N/A

[x] WET ICE [ ] BLUE ICE [ ] GEL PACK [ ] NO COOLING AGENTS USED [x] PM NOTIFIED

Notes: All PT rec'd @ 1°C

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

Worksheets

HOLDING TIMES

SAMPLE DATE	SAMPLE ID	Portland LAB ID	Sacramento Lab ID	Matrix	Prep	Anal
06/25/09	23LCMW01SW	PSF0891-01	LFV9A	Aq	07/01/09	7/3/09 1X
06/25/09	23LF4MW17SW	PSF0891-02	LFV9G	Aq	07/01/09	7/3/09 1X
06/25/09	23LF4MW18SW	PSF0891-03	LFV9J	Aq	07/01/09	7/3/09 1X
06/26/09	23LF4MW7B	PSF0891-04	LFV9K	Aq	07/01/09	7/3/09 1X
06/26/09	23LF4MW5A	PSF0891-05	LFV9M	Aq	07/01/09	7/3/09 1X

7	days from collection to extraction		
Sample Date	6/25/2009	Extract By	7/2/2009
7	days from collection to extraction		
Sample Date	6/26/2009	Extract By	7/3/2009
40	days fromextraction to analysis		
Sample Date	7/1/2009	Extract By	8/10/2009

TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client?	No
Did Sample Form 1s match the target compound list	NA
Were required quantitation limits provided by the client?	No
Did all compounds meet the required quantitation limits?	NA

SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN 1		DF	ACTION
All IN					

Were surrogate RTs within windows established by the ICAL?	Yes
Were there any transcription errors between the raw data and Form 2?	No
Were laboratory acceptance limits used as the basis for validation?	30-150
Did the laboratory provide CLP Form II or equivlaent?	Yes

MW5A

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	F1
34-DNT A	2.588	2.5	103.5	105
34-DNT C	2.81	2.5	112.4	

MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

23LF4MW7B						
COMPOUND	MS %R	MSD %R	RPD	NATIVE	SPIKE	ACTION
picric acid	ok	ok	35	ND		note
2-a-46-dnt	125	129	ok	ND		note
4-a-26-dnt	116	120	ok	ND		note
13dnben	125	130	ok	ND		note
24-dnt	120	124	ok	ND		note
26-dnt	122	125	ok	ND		note
hmx	118	120	ok	ND		note
nbz	121	124	ok	ND		note
3-nt	ok	115	ok	ND		note
4-nt	ok	116	ok	ND		note
rdx	ok	129	ok	ND		note
tetryl	ok	106	ok	ND		note
135-tnb	ok	124	ok	ND		note
246-tnt	113	117	ok	ND		note

Were there any transcription errors between the raw data and Form 3?	No
Were laboratory acceptance limits used as the basis for validation?	Yes
Did the laboratory provide CLP Form III or equivlaent?	Yes
Were chromatograms and quan reports present for all MS/MSDs?	Yes

picric acid	AMOUNT FOUND	AMOUNT NATIVE	AMOUNT SPIKED	%R	Form 3
MS	3.41	0	4.91	69.5	70
MSD	4.85	0	4.92	98.6	99
RPD	-34.9			-34.7	35.0

Recovery = ((Amount Found-Amount Native)/Amount Spiked)*100

RPD = ((MS-MSD)/((MS+MSD)/2))*100

LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LFW791	12 of 17 HI	OK	NA	NA	J

J HMX and RDX in 23LF4MW5A

Were laboratory acceptance limits used as the basis for validation?	Yes
Did the laboratory provide CLP Form III or equivlaent?	Yes
Were chromatograms and quan reports present for all LCS/LCDs?	Yes

LFW791 RDX

12 of 17 HI	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	1.27	1	127.0	127

%R = (Amount Found/Amount Spiked)*100

BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION
LFW791	135-tnbz	0.039	5	0.195	U at RL

NOTE Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

CALIBRATION

Initial

Are chromatograms and quan reports present for all ICAL standards?	Yes
Are CLP For VIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What linearity criteria was used?	20% RSD or 0.99
Were RT window documented?	Yes

Continuing

Are chromatograms and quan reports present for all CCV standards?	Yes
Are CLP Form VIIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What %D criteria was used?	25% D
Have all samples and standards been listed on an Analytical Sequence?	Yes
Was a proper analytical sequence followed?	Yes

INITIAL CALIBRATION - A

Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5.156
Instrument	A	Calcd Avg CF	77.892	Cald %RSD	5.156
Compound	RDX				
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/Avg CF)*100	
		CF8	79.815		

CONTINUING CALIBRATION A

Date	7/3/2009		
Time	0045		
Instrument	A		
Compound	HMX		
Reported Conc	104.8	Rptd %D	5
Calculated Conc	103.835	Cald %D	-3.83
Response	12564	ICAL CF	100
CF	121	CCV CF	103.8
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

INITIAL CALIBRATION - C

Date	6/9/2009	Rptd Avg CF	42.55812	Rptd %RSD	4.852
Instrument	C	Calcd Avg CF	42.558	Cald %RSD	4.852
Compound	RDX				
Reported CF	42.585	CF1	45.40	STD DEV	2
Calculated CF	42.78	CF2	43.70		
		CF3	42.75		
Response	8556	CF4	43.30		
Conc	200	CF5	42.16		
		CF6	42.59		
	CF = (H/C)	CF7	38.118	%RSD = (Std Dev/Avg CF)*100	
		CF8	42.452		

CONTINUING CALIBRATION C

Date	7/11/2009		
Time	0554		
Instrument	C		
Compound	HMX		
Reported Conc	184.3	Rptd %D	8
Calculated Conc	184.280	Cald %D	7.86
Response	7594	ICAL CF	200
CF	41.20913	CCV CF	184.3
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

FIELD DUPLICATES

COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD
PCA					#DIV/0!

NOTES Samples are not qualified on this basis.

COMPOUND IDENTIFICATION AND QUANTITATION

Has a F10 been completed for every sample containing positive results?	Yes
Was RT data presented on the form?	NA
Are RTs within the established winodws?	Yes
Any transcription or calculation errors?	No
Any false positives, negative peaks, shouldering, etc.?	No
Was GCMS confirmation needed for results > 10 µg/ml?	NA
Were percent differences or relative percent differences calculated?	NA
Are percent differences/RPDs greater than 25%?	NA
Are there any transcription errors?	No
Are Form1s present for all field and quality control samples?	No
Are chromatograms and quan reports present for all samples?	Yes
Are RLs adjusted to reflect sample dilutions, percent solids, etc.?	Yes
For soils, any precent solids <50%?	No
For soils, any precent solids <10%?	No

23LF4MW5A RDX 0.4.1 µg/L

	A	C
response	16156	8165
cf	77.89163	42.55812
final vol ml	20	20
initial L	1.01672	1.01673
df	1	1
calculated	4.0801	3.7740

PERCENT DIFFERENCE BETWEEN COLUMNS

SAMPLE	COMPOUND	A	C	RPD	QUALIFIER
23LF4MW5A	HMX	0.246	0.2052	18.1	none
	RDX	4.08	3.774	7.8	none

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98

2325MW7B (ND)

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroglycerin	106	(85 - 115)			SW846 8330
	108	(85 - 115)	2.0	(0-15)	SW846 8330
PETN	110	(84 - 117)			SW846 8330
	111	(84 - 117)	0.90	(0-15)	SW846 8330
Picric Acid	70	(21 - 118)			SW846 8330
	99 p	(21 - 118)	35	(0-20)	SW846 8330
2-Amino-4,6-dinitrotoluene	125 a	(77 - 123)			SW846 8330
	129 a	(77 - 123)	3.4	(0-27)	SW846 8330
4-Amino-2,6-dinitrotoluene	116 a	(68 - 113)			SW846 8330
	120 a	(68 - 113)	3.0	(0-30)	SW846 8330
1,3-Dinitrobenzene	125 a	(72 - 123)			SW846 8330
	130 a	(72 - 123)	4.1	(0-29)	SW846 8330
2,4-Dinitrotoluene	120 a	(70 - 119)			SW846 8330
	124 a	(70 - 119)	2.9	(0-30)	SW846 8330
2,6-Dinitrotoluene	122 a	(71 - 119)			SW846 8330
	125 a	(71 - 119)	2.9	(0-29)	SW846 8330
HMX	118 a	(67 - 115)			SW846 8330
	120 a	(67 - 115)	1.4	(0-32)	SW846 8330
Nitrobenzene	121 a	(69 - 119)			SW846 8330
	124 a	(69 - 119)	2.5	(0-31)	SW846 8330
2-Nitrotoluene	117	(64 - 120)			SW846 8330
	113	(64 - 120)	2.7	(0-36)	SW846 8330
3-Nitrotoluene	113	(67 - 114)			SW846 8330
	115 a	(67 - 114)	2.0	(0-31)	SW846 8330
4-Nitrotoluene	114	(67 - 115)			SW846 8330
	116 a	(67 - 115)	2.3	(0-32)	SW846 8330
RDX	121	(68 - 122)			SW846 8330
	129 a	(68 - 122)	6.3	(0-32)	SW846 8330
Tetryl	102	(66 - 105)			SW846 8330
	106 a	(66 - 105)	4.2	(0-26)	SW846 8330
1,3,5-Trinitrobenzene	119	(74 - 120)			SW846 8330
	124 a	(74 - 120)	4.3	(0-29)	SW846 8330
2,4,6-Trinitrotoluene	113 a	(69 - 111)			SW846 8330
	117 a	(69 - 111)	3.4	(0-28)	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD
Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date.....: 07/01/09 Analysis Date..: 07/03/09
Prep Batch #...: 9182192
Dilution Factor: 0.98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroglycerin	ND	4.91	5.19	ug/L	106		SW846 8330
	ND	4.92	5.29	ug/L	108	2.0	SW846 8330
PETN	ND	4.91	5.41	ug/L	110		SW846 8330
	ND	4.92	5.46	ug/L	111	0.90	SW846 8330
Picric Acid	ND	4.91	3.41	ug/L	70		SW846 8330
	ND	4.92	4.85	ug/L	99 p	35	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.982	1.22	ug/L	125 a		SW846 8330
	ND	0.983	1.26	ug/L	129 a	3.4	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.982	1.14	ug/L	116 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	3.0	SW846 8330
1,3-Dinitrobenzene	ND	0.982	1.23	ug/L	125 a		SW846 8330
	ND	0.983	1.28	ug/L	130 a	4.1	SW846 8330
2,4-Dinitrotoluene	ND	0.982	1.18	ug/L	120 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.9	SW846 8330
2,6-Dinitrotoluene	ND	0.982	1.19	ug/L	122 a		SW846 8330
	ND	0.983	1.23	ug/L	125 a	2.9	SW846 8330
HMX	ND	0.982	1.16	ug/L	118 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	1.4	SW846 8330
Nitrobenzene	ND	0.982	1.19	ug/L	121 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.5	SW846 8330
2-Nitrotoluene	ND	0.982	1.14	ug/L	117		SW846 8330
	ND	0.983	1.11	ug/L	113	2.7	SW846 8330
3-Nitrotoluene	ND	0.982	1.11	ug/L	113		SW846 8330
	ND	0.983	1.14	ug/L	115 a	2.0	SW846 8330
4-Nitrotoluene	ND	0.982	1.12	ug/L	114		SW846 8330
	ND	0.983	1.14	ug/L	116 a	2.3	SW846 8330
RDX	ND	0.982	1.19	ug/L	121		SW846 8330
	ND	0.983	1.27	ug/L	129 a	6.3	SW846 8330
Tetryl	ND	0.982	0.998	ug/L	102		SW846 8330
	ND	0.983	1.04	ug/L	106 a	4.2	SW846 8330
1,3,5-Trinitrobenzene	0.035	0.982	1.20	ug/L	119		SW846 8330
	0.035	0.983	1.26	ug/L	124 a	4.3	SW846 8330
2,4,6-Trinitrotoluene	ND	0.982	1.11	ug/L	113 a		SW846 8330
	ND	0.983	1.15	ug/L	117 a	3.4	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS Matrix.....: WATER
MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits

TestAmerica West Sacramento

NS

A-000019.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 6:39 Operator: fhk

DataFile: LC10 I\07022009.B\A-000019 D Vial Num: 25

Instrument ID: LC10

Sample: **LFV9K1AF 9182192 G9F300242-4 S 1X**

Method File: LC10 I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1018.28 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList: WATER spk

Samp. Info: LFV9K1AF 9182192 G9F300242-4 S 1X;3;

Misc. Info: LCS, 1018 28;;20;1;WATER sub,WATER spk,1,1,LFV9K1AF

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	Limits(%)	Flag
3,4 Dinitrotoluene	18 25	6156	2 5630<	2,45512	104%	Acceptable		18.25	11586	2 6320	2 45512	107%	Acceptable	M	(79-111)	
HMX	5.30	7138	1.1600<	0.982048	118%	Fails					0.982048	0%	Fails		(65-115)	45
RDX	7.88	4720	1 1900<	0 982048	121%	Acceptable					0.982048	0%	Fails		(68-122)	45
Picric ACID	9 09	14543	3 4510	4 910241	70%	Acceptable		9 09	21152	3 4140<	4 910241	70%	Acceptable		(21-118)	
1,3,5-Trinitrobenzene	10.24	9036	1.2020<	0.982048	122%	Fails					0.982048	0%	Fails		(74-120)	45
1,3-Dinitrobenzene	13.31	8723	1.2260<	0.982048	125%	Fails					0.982048	0%	Fails		(72-123)	45
TETRYL	14.37	4713	0 9976<	0 982048	102%	Acceptable					0.982048	0%	Fails		(66-105)	45
Nitrobenzene	15.23	3678	1.1910<	0.982048	121%	Fails					0.982048	0%	Fails		(69-119)	45
2,4,6-Trinitrotoluene	16.60	4967	1.1120<	0.982048	113%	Fails					0.982048	0%	Fails		(69-111)	45
4-AM-2,6-DNT	17.61	3628	1.1440<	0 982048	116%	Fails					0.982048	0%	Fails		(68-113)	45
2-AM-4,6-DNT	18.67	4580	1.2230<	0.982048	125%	Fails					0.982048	0%	Fails		(77-123)	45
2,6-Dinitrotoluene	20.41	3237	1.1940<	0.982048	122%	Fails					0 982048	0%	Fails		(71-119)	45
2,4-Dinitrotoluene	21.13	5152	1.1820<	0.982048	120%	Fails					0 982048	0%	Fails		(70-119)	45
2-Nitrotoluene	24 86	2095	1.1450<	0.982048	117%	Acceptable					0 982048	0%	Fails		(64-120)	45
4-Nitrotoluene	26 68	2486	1 1150<	0.982048	114%	Acceptable					0.982048	0%	Fails		(67-115)	45
3-Nitrotoluene	28 70	2444	1 1130<	0 982048	113%	Acceptable					0.982048	0%	Fails		(67-114)	45
Nitroglycerin				4 910241	0%	Fails		15 86	16078	5 1910<	4.910241	106%	Acceptable		(85-115)	45
PETN				4.910241	0%	Fails		30 30	8828	5.4100<	4 910241	110%	Acceptable		(84-117)	45
3,5-Dinitroaniline	14.05	5434	1 1860<	0.982048	121%	Acceptable					0.982048	0%	Fails		(40-140)	45

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4551	2.5630	104	2.4551	2.6320	107	(79-111)

Notes
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range
Signals Differ by More Than 40%
Signals Differ by More Than 50%

RE-INTEGRATION CODES

1 Poor Peak Shape
2 Poor Peak Resolution
3 Peak Not Integrated
4 Sample Matrix Interference
5 Column Bleed
6 Instrument Noise
7 Baseline Correction
8 Other (reason must be stated)

ALL RE-INTEGRATIONS MUST BE INITIALED, DATED AND CODED

7/7/09

Printed: 7/7/2009 1:16 PM

MSD

TestAmerica West Sacramento

A-000020.D

Chromatography Summary

Injection Date: 7/3/2009 7 30 Operator: fhk

DataFile: LC10 I\07022009 B\A-000020 D Vial Num: 26

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **LFV9K1AG 9182192 G9F300242-4 D 1X**

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1017.3 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList: WATER.spk

Samp. Info: LFV9K1AG 9182192 G9F300242-4 D 1X,3,

Misc. Info: LCS,,1017 3;,20,1;WATER.sub,WATER spk,1,1,LFV9K1AG

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 25	6293	2.6230<	2 457486	107%	Acceptable		18 25	10744	2 4430	2 457486	99%	Acceptable		(79-111)	
HMX	5.31	7227	1.1760<	0.982994	120%	Fails					0.982994	0%	Fails		(65-115)	45
RDX	7.89	5021	1.2670<	0.982994	129%	Fails					0.982994	0%	Fails		(68-122)	45
Picric ACID	9.08	20473	4 8620	4 914971	99%	Acceptable		9 08	29993	4 8460<	4.914971	99%	Acceptable		(21-118)	
1,3,5-Trinitrobenzene	10.24	9422	1.2550<	0.982994	128%	Fails					0.982994	0%	Fails		(74-120)	45
1,3-Dinitrobenzene	13.31	9074	1.2770<	0.982994	130%	Fails					0 982994	0%	Fails		(72-123)	45
TETRYL	14.37	4912	1.0410<	0.982994	106%	Fails					0.982994	0%	Fails		(66-105)	45
Nitrobenzene	15.25	3769	1.2210<	0.982994	124%	Fails					0.982994	0%	Fails		(69-119)	45
2,4,6-Trinitrotoluene	16.60	5134	1.1510<	0.982994	117%	Fails					0 982994	0%	Fails		(69-111)	45
4-AM-2,6-DNT	17.61	3736	1.1790<	0.982994	120%	Fails					0 982994	0%	Fails		(68-113)	45
2-AM-4,6-DNT	18.68	4734	1.2650<	0.982994	129%	Fails					0 982994	0%	Fails		(77-123)	45
2,6-Dinitrotoluene	20.40	3327	1.2290<	0.982994	125%	Fails					0.982994	0%	Fails		(71-119)	45
2,4-Dinitrotoluene	21.13	5301	1.2170<	0.982994	124%	Fails					0.982994	0%	Fails		(70-119)	45
2-Nitrotoluene	24.85	2037	1 1140<	0 982994	113%	Acceptable					0.982994	0%	Fails		(64-120)	45
4-Nitrotoluene	26.67	2543	1.1410<	0.982994	116%	Fails					0.982994	0%	Fails		(67-115)	45
3-Nitrotoluene	28.69	2491	1.1350<	0.982994	115%	Fails					0.982994	0%	Fails		(67-114)	45
Nitroglycerin				4.914971	0%	Fails		15 86	16383	5 2940<	4 914971	108%	Acceptable		(85-115)	45
PETN				4.914971	0%	Fails		30.29	8899	5 4590<	4.914971	111%	Acceptable		(84-117)	45
3,5-Dinitroaniline	14.06	5660	1 2370<	0.982994	126%	Acceptable					0.982994	0%	Fails		(40-140)	45

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4575	2.6230	107	2.4575	2.4430	99	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

ed)

See reintegration.

7/2/09

Printed: 7/7/2009 10:05 AM

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFW791AC Matrix.....: WATER
LCS Lot-Sample#: G9G010000-192
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroglycerin	107	(85 - 115)	SW846 8330
PETN	110	(84 - 117)	SW846 8330
Picric Acid	88	(21 - 118)	SW846 8330
2-Amino-4,6-dinitrotoluene	127 a	(77 - 123)	SW846 8330
4-Amino-2,6-dinitrotoluene	119 a	(68 - 113)	SW846 8330
1,3-Dinitrobenzene	128 a	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	123 a	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	125 a	(71 - 119)	SW846 8330
HMX	120 a	(67 - 115)	SW846 8330
Nitrobenzene	124 a	(69 - 119)	SW846 8330
2-Nitrotoluene	115	(64 - 120)	SW846 8330
3-Nitrotoluene	118 a	(67 - 114)	SW846 8330
4-Nitrotoluene	117 a	(67 - 115)	SW846 8330
RDX	127 a	(68 - 122)	SW846 8330
Tetryl	105	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	127 a	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	116 a	(69 - 111)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFW791AC Matrix.....: WATER
LCS Lot-Sample#: G9G010000-192
Prep Date.....: 07/01/09 Analysis Date..: 07/02/09
Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroglycerin	5.00	5.35	ug/L	107	SW846 8330
PETN	5.00	5.52	ug/L	110	SW846 8330
Picric Acid	5.00	4.42	ug/L	88	SW846 8330
2-Amino-4,6-dinitrotoluene	1.00	1.27 a	ug/L	127	SW846 8330
4-Amino-2,6-dinitrotoluene	1.00	1.19 a	ug/L	119	SW846 8330
1,3-Dinitrobenzene	1.00	1.28 a	ug/L	128	SW846 8330
2,4-Dinitrotoluene	1.00	1.23 a	ug/L	123	SW846 8330
2,6-Dinitrotoluene	1.00	1.25 a	ug/L	125	SW846 8330
HMX	1.00	1.20 a	ug/L	120	SW846 8330
Nitrobenzene	1.00	1.24 a	ug/L	124	SW846 8330
2-Nitrotoluene	1.00	1.15	ug/L	115	SW846 8330
3-Nitrotoluene	1.00	1.18 a	ug/L	118	SW846 8330
4-Nitrotoluene	1.00	1.17 a	ug/L	117	SW846 8330
RDX	1.00	1.27 a	ug/L	127	SW846 8330
Tetryl	1.00	1.05	ug/L	105	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.27 a	ug/L	127	SW846 8330
2,4,6-Trinitrotoluene	1.00	1.16 a	ug/L	116	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

HPLC

Client Lot #...: G9F300242 Work Order #...: LFW791AA Matrix.....: WATER
MB Lot-Sample #: G9G010000-192

Prep Date.....: 07/01/09
Analysis Date..: 07/02/09 Prep Batch #...: 9182192
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	**0.039 J**	**0.10**	**ug/L**	**SW846 8330**
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

QC DATA ASSOCIATION SUMMARY

G9F300242

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9182192	9182194
002	WATER	SW846 8330		9182192	9182194
003	WATER	SW846 8330		9182192	9182194
004	WATER	SW846 8330		9182192	9182194
005	WATER	SW846 8330		9182192	9182194

BI

TestAmerica West Sacramento
ESC-Extraction Master Sheet

Holding Time Due: 7/1/09 7/02/09
BATCH #: 9182192
Test #: 8330-L

Project Due: 7/10/09 7/13/09
Initiated By: TP
Extn Comp'd By: TP

Date: 7/01/09
Date: 7/02/09

SOP No.: WS-LC-0609

EXTRACTION COMMENTS:

QC Code	Lab ID	Sample Size / Initial Mass	Final Volume / Final Mass	Difference in Mass
	MB	See weight Sheet		TP 7/02/09
C	LCS			
	G9F260326-01			
	G9F260326-02			
	G9F260326-03			
7/01/09	G9F260270189-01			
	G9F270189-02			
	G9F270189-03			
	G9F270189-04			
	G9F270189-05			
	G9F300242-01			
	G9F300242-02			
	G9F300242-03			
	G9F300242-04			
S	G9F300242-04MS			
D	G9F300242-04MSD			
	G9F300242-05			
	TP 7/02/09			

QC Codes	Standard Information: Volume	STD ID	Exp. Date	STD Name/Conc.	ppm/(ppb)
All	50uL	09GCSV0172	12/10/09	8330 Surr 50ug/mL	2.5
C,S,D	20uL	09GCSV0037	7/17/09	3,5 DNA 50ug/mL	1.0
C,S,D	100uL	09GCSV0149	11/1/09	NG/PETN 50ug/mL	5.0
C,S,D	100uL	09GCSV0039	7/17/09	Picric Acid 50ug/mL	5.0

Spiked By / Date: TP 7/01/09
Witnessed By / Date: MD 7-1-09

QC Codes: B = MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/02/09
Time: 11:49:39

LEV 1	LEV 2		LEV 1	LEV 2	
Y	–	Blank	Y	–	Weights/Volumes
Y	–	Check	Y	–	Spike & Surrogate Worksheet
Y	–	MS/MSD	Y	–	Vial contains correct volume
			–	–	Labels, greenbars, worksheets computer batch: correct & all match
			–	–	Anomalies to Extraction Method

– Expanded Deliverable
– COC Completed
Y Bench Sheet Copied
– Package Submitted to AnalyticalGroup
– Bench Sheet Copied per COC

Extractionist: 002448 Tuan Q. Phan

Concentrationist: 002448 Tuan Q. Phan

Reviewer/Date: PHANT / 7/02/09

****
* *
* QC BATCH: 9182192 *
* *
****

PREP DATE: 7/01/09 9:00
COMP DATE: 7/02/09 10:40

Nitroaromatics & Nitramines: Explosives (8330)
SOLID PHASE EXTRACTION (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/01/09	7/10/09	G9F260326-001 LFQAX-1-AC		B7	A0	WATER	997.78mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/10/09	G9F260326-002 LFQAL-1-AC		B7	A0	WATER	991.12mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/10/09	G9F260326-003 LFQAM-1-AC		B7	A0	WATER	1009.82mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	7/13/09	G9F270189-001 LFRD6-1-AC		B7	A0	WATER	985.56mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-002 LFRD7-1-AC		B7	A0	WATER	999.12mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-003 LFRD8-1-AC		B7	A0	WATER	991.73mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/13/09	G9F270189-004 LFRD9-1-AC		B7	A0	WATER	996.78mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/02/09
Time: 11:49:39

****
* QC BATCH: 9182192 *
****

PREP DATE: 7/01/09 9:00
COMP DATE: 7/02/09 10:40

EXTR EXPR	ANL DUE	LOT#,MSRUN# / WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/02/09	7/13/09	G9F270189-005 LFREA-1-AC		B7	A0	WATER	985.33mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-001 LFV9A-1-AC		B7	A0	WATER	1014.4mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-002 LFV9G-1-AC		B7	A0	WATER	975.28mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/02/09	7/14/09	G9F300242-003 LFV9J-1-AC		B7	A0	WATER	1018.23mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AC		B7	A0	WATER	1028.11mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AFS		B7	A0	WATER	1018.28mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-004 LFV9K-1-AGD		B7	A0	WATER	1017.3mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9F300242-005 LFV9M-1-AC		B7	A0	WATER	1016.72mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	0/00/00	G9G010000-192 LFW79-1-AAB		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/01/09	0/00/00	G9G010000-192 LFW79-1-ACC		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV0172
COMMENTS:															

.1% HOAC.ACN 2991-95F; .1%HOAC/H2O 2991-87B;FILTER MILLIPORE LOT R5PN29184
SPE COLUMN WATER LOT 003339084A; SODIUM CHLORIDE MALLINCKRODT LOT H07582
LCS,MS/MSD SPIKE 200L-09GCSV0037;100UL-09GCSV0149;100UL-09GCSV0039

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 17

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Page# 36

Inst ID: LC10 Batch ID: 06102009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUN-2009	14:42	fhk	Blank	A-000001.	0 g	0 mL	1	
10-JUN-2009	15:33	fhk	STD_1 09GCSV0048 5.0/0/0/0/0ng/m	A-000002.	0 g	0 mL	1	
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049 10/20/10/10ng	A-000003.	0 g	0 mL	1	
10-JUN-2009	17:14	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000004.	0 g	0 mL	1	Bad Std
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051 50/100/50/50n	A-000005.	0 g	0 mL	1	
10-JUN-2009	18:56	fhk	STD_5 09GCSV0053 100/200/100/1	A-000006.	0 g	0 mL	1	
10-JUN-2009	19:46	fhk	STD_6 09GCSV0054 200/500/200/2	A-000007.	0 g	0 mL	1	
10-JUN-2009	20:37	fhk	STD_7 09GCSC0055 500/1000/500/	A-000008.	0 g	0 mL	1	
10-JUN-2009	21:28	fhk	STD_8 09GCSV0056 1000/2000/100	A-000009.	0 g	0 mL	1	
10-JUN-2009	22:18	fhk	Blank	A-000010.	0 g	0 mL	1	
10-JUN-2009	23:09	fhk	ICV_6 08GCSV0397 100/200/100/1	A-000011.	0 g	0 mL	1	
11-JUN-2009	00:00	fhk	STD_5 09GCSV0053 100/200/100/1	A-000012.	0 g	0 mL	1	
11-JUN-2009	00:50	fhk	Surrogate 100ng/mL	A-000013.	0 g	0 mL	1	
11-JUN-2009	12:56	fhk	Primer	A-000014.	0 g	0 mL	1	
11-JUN-2009	13:47	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000015.	0 g	0 mL	1	Wrong extract New Std

JH 6/11/09

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
2 HMX	119	120	115	125	123	124		
	116	123					121	3.066
3 RDX	81.80000	75.90000	77.15000	80.72000	78.45000	80.13000		
	69.16800	79.81500					77.89163	5.156
4 EGDN	*****	*****	*****	*****	*****	*****		
	*****	*****					*****	*****
5 Picric ACID	*****	*****	91.72000	85.68000	84.85500	84.88200		
	74.63400	74.97800					82.77483	8.120
6 1,3,5-Trinitrobenzene	161	146	145	150	147	148		
	136	147					148	4.610
7 1,3-Dinitrobenzene	145	142	138	142	139	142		
	128	141					140	3.715
8 3,5-Dinitroaniline	97.20000	90.80000	89.35000	91.80000	88.83000	90.35000		
	82.20800	89.25000					89.97350	4.581
9 TETRYL	97.60000	95.10000	77.40000	96.02000	94.31000	95.06000		
	92.43000	94.40900					92.79113	6.886

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1 / 500.000 Level 7	10.000 Level 2 / 1000.000 Level 8	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
10 Nitrobenzene	63.80000	62.30000	56.55000	61.44000	61.06000	62.26000		
	56.02600	61.95700					60.67412	4.659
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	94.80000	90.20000	81.90000	88.78000	87.04000	87.55500		
	84.22200	87.17800					87.70937	4.401
13 4-AM-2,6-DNT	67.00000	63.30000	60.85000	63.26000	61.61000	62.67000		
	58.65400	61.14600					62.31125	3.901
14 2-AM-4,6-DNT	74.80000	75.80000	73.10000	75.54000	73.53000	74.39000		
	69.18400	72.13500					73.55987	2.932
15 2,6-Dinitrotoluene	57.60000	53.30000	51.90000	53.68000	53.03000	53.21500		
	50.43000	52.74900					53.23800	3.835
16 2,4-Dinitrotoluene	93.00000	86.50000	82.60000	86.20000	84.72000	85.49000		
	81.43200	85.05700					85.62488	4.033
17 2-Nitrotoluene	40.80000	37.40000	33.20000	35.64000	35.21000	35.77500		
	33.97400	35.45000					35.93113	6.486
18 4-Nitrotoluene	48.00000	46.40000	40.75000	43.56000	43.22000	43.56500		
	41.67600	43.21300					43.79800	5.390
19 3-Nitrotoluene	47.00000	44.60000	39.85000	43.24000	42.93000	43.08000		
	41.51600	42.82400					43.13000	4.852
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	50.10000	46.40000	46.48000	45.87000	46.85500		
	46.08000	48.38600					47.16729	3.251

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	___ RRF	% RSD	
2 HMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 RDX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
5 Picric ACID	+++++	134	126	125	125	110	110	122	8.080	
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 3,5-Dinitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 TETRYL	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	___ RRF	% RSD
10 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Nitroglycerin	+++++	61.25000	59.82000	60.58000	61.86500	59.75400	61.73900	60.83467	1.527
12 2,4,6-Trinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4-AM-2,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 2-AM-4,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 2-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 3-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 PETN	+++++	32.65000	30.36000	31.91000	32.25000	32.38000	32.75200	32.05033	2.748

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
$ 1 3,4-Dinitrotoluene	★ +++++	90.40000	88.76000	88.28000	90.51000	88.03667		
	93.14200						89.85478	2.142

★ Level 2 dropped due to poor integration
Glk
6/12/09

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 6/10/2009 23:09 Operator: fnk

DataFile: LC10.I\06102009.B\A-000011.D Vial Num: 20

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample: **ICV_6 08GCSV0397 100/200/100/100ng/mL**

Method File: LC10.I\06102009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 100/200/100/100ng/mL;2

Misc. Info: ;6; ; ; ;3;CAL sub; ;0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
HMX	5.29	26153	216.4000<	200	8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.84	16084	206.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.00	41754	504.4000	600	1%	Acceptable		9.00	61509	505.5000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.25	27834	199.2000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.30	17776	191.6000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.31	11969	192.1000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.28	10445	196.2000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.00	16653	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.49	8451	195.9000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206.3000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.10	5830	181.9000<	200	-9%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes. M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 6/11/2009 3:26 PM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07022009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Dilu	Comments
02-JUL-2009	15:27	fhk	Primer	A-000001.	0 g	0 mL	1	
02-JUL-2009	16:18	fhk	Primer	A-000002.	0 g	0 mL	1	
02-JUL-2009	17:09	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000003.	0 g	0 mL	1	
02-JUL-2009	18:00	fhk	LFW791AA 9182192 G9G010000-192	A-000004.	1000 mL	20 mL	1	
02-JUL-2009	18:50	fhk	LFW791AC 9182192 G9G010000-192	A-000005.	1000 mL	20 mL	1	
02-JUL-2009	19:40	fhk	LFQAK1AC 9182192 G9F260326-1 1	A-000006.	997.78 mL	20 mL	1	
02-JUL-2009	20:31	fhk	LFQAL1AC 9182192 G9F260326-2 1	A-000007.	991.12 mL	20 mL	1	
02-JUL-2009	21:22	fhk	LFQAM1AC 9182192 G9F260326-3 1	A-000008	1009 82 mL	20 mL	1	
02-JUL-2009	22:13	fhk	LFRD61AC 9182192 G9F270189-1 1	A-000009	985.56 mL	20 mL	1	
02-JUL-2009	23:03	fhk	LFRD71AC 9182192 G9F270189-2 1	A-000010.	999 12 mL	20 mL	1	
02-JUL-2009	23:54	fhk	LFRD81AC 9182192 G9F270189-3 1	A-000011.	991 73 mL	20 mL	1	
03-JUL-2009	00:45	fhk	STD_5 09GCSV0053 2K/.1/.1/.1/	A-000012.	0 g	0 mL	1	
03-JUL-2009	01:36	fhk	LFRD91AC 9182192 G9F270189-4 1	A-000013.	996 78 mL	20 mL	1	
03-JUL-2009	02:27	fhk	LFREA1AC 9182192 G9F270189-5 1	A-000014.	985.33 mL	20 mL	1	
03-JUL-2009	03:17	fhk	LFV9A1AC 9182192 G9F300242-1 1	A-000015.	1014.4 mL	20 mL	1	
03-JUL-2009	04:07	fhk	LFV9G1AC 9182192 G9F300242-2 1	A-000016.	975.28 mL	20 mL	1	
03-JUL-2009	04:58	fhk	LFV9J1AC 9182192 G9F300242-3 1	A-000017.	1018.21 mL	20 mL	1	
03-JUL-2009	05:49	fhk	LFV9K1AC 9182192 G9F300242-4 1	A-000018.	1028.11 mL	20 mL	1	
03-JUL-2009	06:39	fhk	LFV9K1AF 9182192 G9F300242-4 S	A-000019.	1018.28 mL	20 mL	1	MS
03-JUL-2009	07.30	fhk	LFV9K1AG 9182192 G9F300242-4 D	A-000020.	1017.3 mL	20 mL	1	MSD
03-JUL-2009	08:20	fhk	LFV9M1AC 9182192 G9F300242-5 1	A-000021.	1016.72 mL	20 mL	1	
03-JUL-2009	09.11	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000022.	0 g	0 mL	1	
03-JUL-2009	10:01	fhk	09GCSV0234 LEVEL 1	A-000023.	0 g	0 mL	1	
03-JUL-2009	10:52	fhk	09GCSV0235 LEVEL 2	A-000024	0 g	0 mL	1	
03-JUL-2009	11:42	fhk	09GCSV0236 LEVEL 3	A-000025.	0 g	0 mL	1	
03-JUL-2009	12:33	fhk	09GCSV0237 LEVEL 4	A-000026.	0 g	0 mL	1	
03-JUL-2009	13:23	fhk	09GCSV0238 LEVEL 5	A-000027	0 g	0 mL	1	
03-JUL-2009	14.14	fhk	09GCSV0239 LEVEL 5	A-000028.	0 g	0 mL	1	
03-JUL-2009	15:04	fhk	09GCSV0240 LEVEL 6	A-000029.	0 g	0 mL	1	
03-JUL-2009	15:55	fhk	09GCSV0241 LEVEL 7	A-000030.	0 g	0 mL	1	
03-JUL-2009	16:45	fhk	09GCSV0242 LEVEL 8	A-000031.	0 g	0 mL	1	
03-JUL-2009	17:36	fhk	09GCSV0243 MRL	A-000032.	0 g	0 mL	1	

TestAmerica West Sacramento

A-000003.D

Chromatography Summary

Injection Date: 7/2/2009 17 09 Operator: fhk

DataFile: LC10.I\07022009 B\A-000003 D Vial Num: 2

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **STD_6 09GCSV0054 .4K/.2/.2/.2/.2**

Method File: LC10 I\07022009 B\8330AB.M

Start Cal Date: 6/10/2009 15.33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 4K/.2/.2/.2/.2

Misc. Info: ,6, , , ;3;CAL.sub; ;0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.20	9636	204 3000<	200	2%	Acceptable		18 20	18445	213 4000	200	7%	Acceptable		(±15)	
HMX	5.29	25432	210 5000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7 85	16295	209 2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8.99	41811	505.1000	500	1%	Acceptable		8 99	61520	505 6000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10 20	30367	205 7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 26	29099	208.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 32	19114	206.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15 19	12872	212.1000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16 55	18075	206 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.55	12873	206.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.61	15046	204.5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.34	10970	206.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21 06	17567	205 2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24 79	7368	205 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.61	8982	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28 64	8962	207 8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15 81	12531	206 0000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 22	6862	214.1000<	200	7%	Acceptable		(±15)	45
3,5-Dinitroaniline	14 01	18502	205.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/2/2009 7:28 PM

TestAmerica West Sacramento

A-000012.D

Chromatography Summary

Injection Date: 7/3/2009 0:45 Operator: fhk

DataFile: LC10.I\07022009.B\A-000012.D Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **STD_5 09GCSV0053 .2K/.1/.1/.1/.1**

Method File: LC10 I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_5 09GCSV0053 2K/.1/.1/.1/.1,2

Misc. Info: ;5; ; ; ;3;CAL sub; ;0:1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.21	4770	101.1000<	100	1%	Acceptable		18.21	9105	105.3000	100	5%	Acceptable		(±15)	
HMX	5.29	12564	104.8000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7.86	8028	103.1000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9.05	16980	205.1000	200	3%	Acceptable		9.05	25011	205.5000<	200	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.21	15116	102.4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.27	14453	103.5000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14.34	9510	102.5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15.20	6322	104.2000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.57	9018	102.8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.56	6403	102.8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.63	7508	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.35	5455	102.5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.08	8726	101.9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.79	3635	101.2000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26.61	4448	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28.63	4394	101.9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15.82	6254	102.8000<	100	3%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30.25	3304	103.1000<	100	3%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.02	9179	102.0000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/7/2009 10:01 AM

TestAmerica West Sacramento

A-000022.D

Chromatography Summary

Injection Date: 7/3/2009 9:11 Operator: fhk

DataFile: LC10 M07022009.B\A-000022 D Vial Num: 4

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **STD_6 09GCSV0054 .4K/.2/.2/.2/.2**

Method File: LC10 M07022009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Misc. Info: ,6, ; ; ,3,CAL.sub, ,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.24	9589	203.3000<	200	2%	Acceptable		18.23	18290	211.6000	200	6%	Acceptable		(±15)	
HMX	5.30	25440	210.6000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.87	16268	208.8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.04	42655	515.3000	500	3%	Acceptable		9.04	62723	515.5000<	500	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.22	30282	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.29	28991	207.5000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.35	19191	206.8000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.21	12738	209.9000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.58	18022	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.58	12828	205.9000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.65	15059	204.7000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.38	10882	204.4000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.10	17483	204.2000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.82	7294	203.0000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.64	8876	202.6000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.67	8836	204.9000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.84	12481	205.2000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.27	6681	208.4000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.03	18458	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

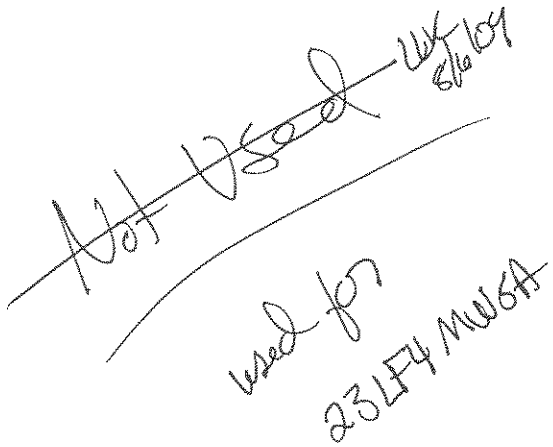
Printed: 7/7/2009 10:10 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

C

Inst ID: LC9 Batch ID: 06092009
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
09-JUN-2009	17:40	fhk	Primer	C-000001	0 g	0 mL	1	
09-JUN-2009	18:46	fhk	Primer	C-000002	0 g	0 mL	1	
09-JUN-2009	19:49	fhk	BLANK	C-000003	0 g	0 mL	1	
09-JUN-2009	20:53	fhk	STD_1 09GCSV0048 5/0/0/0/0	C-000004	0 g	0 mL	1	
09-JUN-2009	21:56	fhk	STD_2 09GCSV0049 10/20/10/10/1	C-000005	0 g	0 mL	1	
09-JUN-2009	22:59	fhk	STD_3 09GCSV0050 20/50/20/20/2	C-000006	0 g	0 mL	1	
10-JUN-2009	00:03	fhk	STD_4 09GCSV0051 50/100/50/50/	C-000007	0 g	0 mL	1	
10-JUN-2009	01 07	fhk	STD_5 09GCSV0053 100/200/100/1	C-000008	0 g	0 mL	1	
10-JUN-2009	02.11	fhk	STD_6 09GCSV0054 200/500/200/2	C-000009	0 g	0 mL	1	
10-JUN-2009	03:16	fhk	STD_7 09GCSV0055 500/1000/500/	C-000010	0 g	0 mL	1	
10-JUN-2009	04:20	fhk	STD_8 09GCSV0056 1000/2000/1K/	C-000011	0 g	0 mL	1	
10-JUN-2009	05:25	fhk	BLANK	C-000012	0 g	0 mL	1	
10-JUN-2009	06:29	fhk	ICV_6 08GCSV0397 200/500/200/2	C-000013	0 g	0 mL	1	
10-JUN-2009	07:33	fhk	STD_5 09GCSV0053 100/200/100/1	C-000014	0 g	0 mL	1	



TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000004.d
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	500.000 Level 7	1000.000 Level 8							
2 HMX	49.60000	43.70000	40.45000	40.46000	39.51000	39.31500			
	37.41800	39.22000					41.20913	9.288	
3 RDX	45.40000	43.70000	42.75000	43.30000	42.16000	42.58500			
	38.11800	42.45200					42.55812	4.852	
4 EGDN	*****	*****	*****	*****	*****	*****			
	*****	*****					*****	*****	<-
5 Picric ACID	*****	*****	*****	*****	*****	*****			
	*****	*****					*****	*****	<-
6 1,3,5-Trinitrobenzene	66.80000	67.20000	67.60000	68.82000	67.02000	67.61500			
	63.46600	67.27500					66.97450	2.306	
7 1,3-Dinitrobenzene	95.20000	88.70000	87.25000	89.40000	87.58000	88.56500			
	79.37000	88.38800					88.05662	4.893	
8 3,5-Dinitroaniline	71.20000	68.50000	68.65000	68.54000	66.12000	66.97500			
	60.97200	65.89900					67.10700	4.478	
9 TETRYL	93.20000	86.50000	85.70000	86.92000	86.05000	86.26500			
	85.04400	86.33600					87.00187	2.950	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	500.000 Level 7	1000.000 Level 8							
10 Nitrobenzene	39.40000	42.00000	38.65000	40.64000	39.79000	40.66500			
	35.35200	40.30500					39.60025	5.005	
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	
12 2,4,6-Trinitrotoluene	104	91.00000	81.00000	77.16000	74.32000	73.90500			
	71.97000	73.60800					80.89538	13.892	
13 4-AM-2,6-DNT	68.80000	69.80000	68.05000	67.74000	65.37000	65.85500			
	64.80800	65.14700					66.94625	2.818	
14 2-AM-4,6-DNT	80.20000	76.80000	75.45000	74.54000	72.25000	73.07500			
	69.79400	72.19800					74.28838	4.343	
15 2,6-Dinitrotoluene	54.80000	52.40000	49.70000	49.88000	49.11000	49.44000			
	45.69200	49.41100					50.05412	5.280	
16 2,4-Dinitrotoluene	83.00000	82.40000	79.60000	80.22000	78.86000	79.32000			
	73.10400	78.73900					79.40538	3.779	
17 2-Nitrotoluene	24.50000	25.30000	23.52500	24.39000	24.32500	24.51250			
	22.18600	24.28200					24.12756	3.813	
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
19 3-Nitrotoluene	35.00000	32.50000	30.55000	31.42000	30.76000	31.17500			
	28.82000	30.96400					31.39862	5.672	
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	46.40000	40.85000	39.44000	38.04000	38.34500		
	35.87333	38.62800					39.65376	8.405

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\C-0
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d\C-0
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\C-0
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d\C-0
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d\C-0
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d\C-0
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d\C-0

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD	
2 HMX	*****	*****	*****	*****	*****	*****	*****	*****	*****	
3 RDX	*****	*****	*****	*****	*****	*****	*****	*****	*****	
4 EGDN	*****	39.00000	42.36000	44.25000	44.94000	40.36600	42.86600	42.29700	5.363	
5 Picric ACID	*****	*****	*****	*****	*****	*****	*****	*****	*****	<-
6 1,3,5-Trinitrobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****	
7 1,3-Dinitrobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****	
8 3,5-Dinitroaniline	*****	*****	*****	*****	*****	*****	*****	*****	*****	
9 TETRYL	*****	*****	*****	*****	*****	*****	*****	*****	*****	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
10 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Nitroglycerin	+++++	55.25000	55.16000	56.31000	57.02000	56.37800	57.30100	56.23650	1.571
12 2,4,6-Trinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4-AM-2,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 2-AM-4,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 2-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 3-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 PETN	+++++	104	101	102	104	104	105	103	1.208

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD	
	1000.000 Level 8								
$ 1 3,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-

TestAmerica West Sacramento

C-000013.D

Chromatography Summary

Injection Date: 6/10/2009 6:29 Operator: fhk

DataFile: LC9 I\06092009 B\C-000013 D Vial Num: 20

Instrument ID: LC9

Method 8330 Target Analyte Results

Sample : ICV_6 08GCSV0397 200/500/200/200/200

Method File: LC9 I\06092009 B\8330CNAB M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 200/500/200/200/200;2

Misc. Info: ;6, , , ; 3; CAL.sub; ; 0; 1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	31.18	259	6.5320<	200	-97%	Fails	Not in Mtd				200	-100%	Fails		(±15)	45
HMX	35.11	8323	202.0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25.60	8556	201.0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21.78	13318	198.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19.50	17403	197.6000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	40.80	16134	185.4000<	200	-7%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16.81	7967	201.2000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32.92	14562	180.0000<	200	-10%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29.55	12516	187.0000<	200	-7%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	29.21	14216	191.4000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	27.26	9755	194.9000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	26.42	15486	195.0000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22.83	9684	401.4000<	400	0%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	23.35	6108	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38.67	11785	209.6000<	200	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		49.13	19084	184.7000<	200	-8%	Acceptable		(±15)	45
3,5-Dinitroaniline	25.06	13705	204.2000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails		18.01	9041	213.8000	200	7%	Acceptable		(±15)	45

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 6/10/2009 10:43 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 07102009A
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUL-2009	17:28	fhk	Primer	C-000001.	0 g	0 mL	1	
10-JUL-2009	18:30	fhk	Primer	C-000002.	0 g	0 mL	1	
10-JUL-2009	19:32	fhk	STD_5 09GCSV0238 .2K/ 1/.1/.1/	C-000003.	0 g	0 mL	1	
10-JUL-2009	20:34	fhk	LF1EN1AA 9183251 G9G020000-251	C-000004.	1000 mL	20 mL	1	
10-JUL-2009	21:36	fhk	LFXXW1AC 9183251 G9G010225-1 1	C-000005.	1000 mL	20 mL	1	
10-JUL-2009	22:39	fhk	LFX111AC 9183251 G9G010225-3 1	C-000006.	1000 mL	20 mL	1	
10-JUL-2009	23:41	fhk	LFX121AC 9183251 G9G010225-4 1	C-000007.	1000 mL	20 mL	1	
11-JUL-2009	00:43	fhk	LFX151AC 9183251 G9G010225-5 1	C-000008	1000 mL	20 mL	1	
11-JUL-2009	01:45	fhk	LF7A31AA 9189394 G9G080000-394	C-000009.	10 g	80 mL	1	
11-JUL-2009	02:48	fhk	LFX4Q1AA 9189394 G9G010246-1 1	C-000010	10.01 g	80 mL	1	
11-JUL-2009	03:50	fhk	LFX4R1AA 9189394 G9G010246-2 1	C-000011.	9.06 g	80 mL	1	
11-JUL-2009	04:52	fhk	LFX4T1AA 9189394 G9G010246-3 1	C-000012.	10.01 g	80 mL	1	
11-JUL-2009	05:54	fhk	STD_6 09GCSV0054 .5K/.2/.2/ 2/	C-000013.	0 g	0 mL	1	
11-JUL-2009	06:57	fhk	LF3161AA 9187206 G9G060000-206	C-000014.	1000 mL	20 mL	1	
11-JUL-2009	07:59	fhk	LF3H41AC 9187206 G9G030156-1 1	C-000015.	1000 mL	20 mL	1	
11-JUL-2009	09:01	fhk	LF3H51AC 9187206 G9G030156-2 1	C-000016.	1000 mL	20 mL	1	
11-JUL-2009	10:03	fhk	LF3H61AC 9187206 G9G030156-3 5	C-000017.	1000 mL	20 mL	5	
11-JUL-2009	11:06	fhk	LF5WA1AA 9188431 G9G070000-431	C-000018.	2 g	40 mL	1	
11-JUL-2009	12:08	fhk	LFXP31AA 9188431 A9G010193-1 1	C-000019.	2 g	40 mL	1	
11-JUL-2009	13:10	fhk	LFXQQ1AA 9188431 A9G010193-2 1	C-000020.	2.02 g	40 mL	1	
11-JUL-2009	14:12	fhk	LFW791AAB 9182192 MB 1X	C-000021.	1000 mL	20 mL	1	
11-JUL-2009	15:14	fhk	LFV9M1AC 9182192 G9F300242-5 1	C-000022.	1016.72 mL	20 mL	1	
11-JUL-2009	16:16	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	C-000023.	0 g	0 mL	1	

TestAmerica West Sacramento

C-000013.D

Chromatography Summary

Injection Date: 7/11/2009 5 54 Operator: fhk

DataFile: LC9,I07102009A B\C-000013 D Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID: LC9

Sample : STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Method File: LC9 I07102009A B\8330CNAB M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4.20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 5K/.2/.2/.2/.2

Misc. Info: ; 6; ; . ; 3; CAL.sub, , 0; 1, 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30 69	8487	214 0000<	200	7%	Acceptable					200	-100%	Fails		(±15)	45
HMX	34 67	7594	184.3000<	200	-8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25 16	8673	203 8000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21 54	13992	208.9000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19 18	18240	207 1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	40.38	18246	209 7000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16.47	8291	209.4000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32 59	16243	200 3000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29 08	13363	199 6000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28 74	14987	201.7000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26.81	10167	203 1000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	25 99	16528	208.1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22.38	10164	421.3000<	400	5%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	22 90	6323	201 4000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38 25	11803	209.9000<	200	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		48.78	21503	208 1000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	24.65	13757	205 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails		17.80	9381	221 8000	200	11%	Acceptable		(±15)	45

Notes. M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:30 AM

TestAmerica West Sacramento

C-000023.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/11/2009 16.16 Operator: ftk

DataFile: LC9 I\07102009A B\C-000023 D Vial Num: 4

Instrument ID: LC9

Sample: **STD_5 09GCSV0238 .2K/.1/.1/.1/.1**

Method File: LC9.I\07102009A B\8330CNAB M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4 20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_5 09GCSV0238 .2K/ 1/ 1/ 1/.1,2

Misc. Info: ; 5; ; ; , 3, CAL.sub; ; 0, 1, 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30 65	4159	104.9000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
HMX	34 66	3754	91 1000<	100	-9%	Acceptable					100	-100%	Fails		(±15)	45
RDX	25 13	4283	100 6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID				200	-100%	Fails					200	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21.50	6847	102.2000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19.16	8905	101 1000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	40.39	8996	103 4000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	16.46	4129	104.3000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32 52	7906	97.7300<	100	-2%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29 04	6874	102.7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28 71	7346	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26.77	5040	100 7000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	25.95	8071	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	22 34	5089	210.9000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
3-Nitrotoluene	22 86	3157	100.5000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		38 25	5728	101 8000<	100	2%	Acceptable		(±15)	45
PETN				100	-100%	Fails		48.84	10890	105.4000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	24 62	6884	102.6000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails		17.78	4429	104 7000	100	5%	Acceptable		(±15)	45

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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23LC MW015W

TestAmerica West Sacramento

A-000015.D

Chromatography Summary

Injection Date: 7/3/2009 3:17 Operator: ftk

DataFile: LC10 I\07022009 B\A-000015 D Vial Num: 21

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **LFV9A1AC 9182192 G9F300242-1 1X**

Method File: LC10,I\07022009.B\8330AB.M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13.47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1014.4 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFV9A1AC 9182192 G9F300242-1 1X,0,

Misc. Info: ;,1014 4,:20;1;WATER sub.,0,1,LFV9A1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.26	0.044	6110	2.5540<		18.26	0.017	11761	2.6820		0.0000	0.00	
HMX											0 0266	0 10	
RDX											0 0641	0 10	
Picric ACID											0 1232	0.99	
1,3,5-Trinitrobenzene	10 11	-0 106	242	0.0323<							0 0306	0 10	45
1,3-Dinitrobenzene											0 0493	0.10	
TETRYL											0 0493	0 10	
Nitrobenzene											0 0493	0 10	
2,4,6-Trinitrotoluene											0 0237	0 10	
4-AM-2 6-DNT											0 0217	0 10	
2 AM-4,6-DNT											0 0986	0 20	
2,6-Dinitrotoluene											0 0493	0.10	
2,4-Dinitrotoluene											0 0493	0.10	
2-Nitrotoluene											0 0710	0 49	
4-Nitrotoluene											0 0710	0 49	
3-Nitrotoluene											0 0611	0.49	
Nitroglycerin											0 3253	0.64	
PETN											0 2957	0.64	
3,5-Dinitroaniline											0 0246	0 99	

NO

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4645	2.5540	104	2.4645	2.6820	109	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

234F4MW17SW

TestAmerica West Sacramento

A-000016.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 4 07 Operator: fhk

DataFile: LC10.I\07022009 B\A-000016 D Vial Num: 22

Instrument ID: LC10

Sample : **LFV9G1AC 9182192 G9F300242-2 1X**

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	975.28 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFV9G1AC 9182192 G9F300242-2 1X,0,

Misc. Info: ;;975.28;;20;1,WATER sub:,0,1,LFV9G1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.023	6196	2.6940<		18.24	-0.005	11933	2.8310		0.0000	0.00	
HMX											0 0277	0 10	
RDX											0 0666	0.10	
Picric ACID											0 1282	1 03	
1,3,5-Trinitrobenzene	10 14	-0.074	250	0.0347<							0 0318	0 10	45
1,3-Dinitrobenzene											0 0513	0 10	
TETRYL											0 0513	0.10	
Nitrobenzene											0 0513	0.10	
2,4,6-Trinitrotoluene											0 0246	0.10	
4 AM-2,6-DNT											0 0226	0 10	
2 AM-4,6-DNT											0 1025	0 21	
2,6-Dinitrotoluene											0 0513	0 10	
2,4-Dinitrotoluene											0 0513	0.10	
2-Nitrotoluene											0 0738	0 51	
4-Nitrotoluene											0 0738	0.51	
3-Nitrotoluene											0 0636	0.51	
Nitroglycerin											0 3384	0 67	
PETN											0 3076	0.67	
3,5-Dinitroaniline											0 0256	1 03	

ND

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5634	2.6940	105		2.5634	2.8310	110	(79-111)

Notes. M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

232F4MW185W

TestAmerica West Sacramento

A-000017.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 4 58 Operator: fhk

DataFile: LC10 B\07022009.B\A-000017.D Vial Num: 23

Instrument ID: LC10

Sample : **LFV9J1AC 9182192 G9F300242-3 1X**

Method File: LC10 B\07022009 B\8330AB.M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1018.21 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFV9J1AC 9182192 G9F300242-3 1X,0,

Misc. Info: .,1018 21:;20;1;WATER.sub;;0.1;LFV9J1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.25	0.036	6078	2.5310<		18.25	0.009	11702	2.6590		0.0000	0.00	
HMX											0 0265	0 10	
RDX											0 0638	0 10	
Picric ACID											0 1228	0 98	
1,3,5-Trinitrobenzene	10 13	-0 080	276	0 0367<							0.0304	0 10	45
1,3-Dinitrobenzene											0 0491	0.10	
TETRYL											0 0491	0.10	
Nitrobenzene											0 0491	0 10	
2,4,6-Trinitrotoluene											0 0236	0 10	
4-AM-2,6-DNT											0 0216	0 10	
2-AM-4,6-DNT											0 0982	0.20	
2,6-Dinitrotoluene											0 0491	0.10	
2,4-Dinitrotoluene											0 0491	0 10	
2-Nitrotoluene											0 0707	0.49	
4-Nitrotoluene											0 0707	0 49	
3-Nitrotoluene											0 0609	0 49	
Nitroglycerin											0 3241	0.64	
PETN											0 2946	0 64	
3,5-Dinitroaniline											0.0246	0 98	

ND

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4553	2.5310	103	2.4553	2.6590	108	(79-111)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

232F4 MW7B

TestAmerica West Sacramento

A-000018.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/3/2009 5:49 Operator: fnk

DataFile: LC10 I\07022009 B\A-000018 D Vial Num: 24

Instrument ID: LC10

Sample : **LFV9K1AC 9182192 G9F300242-4 1X**

Method File: LC10.I\07022009 B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1028.11 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFV9K1AC 9182192 G9F300242-4 1X,0,

Misc. Info: ;;1028.11,,20,1;WATER sub;,0,1;LFV9K1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.028	5788	2.3870<		18.24	0.001	11100	2.4980		0.0000	0.00	
HMX											0.0263	0.10	
RDX											0.0632	0.10	
Picric ACID											0.1216	0.97	
1,3,5-Trinitrobenzene	10.17	-0.045	264	0.0348<							0.0302	0.10	45
1,3-Dinitrobenzene											0.0486	0.10	
TETRYL											0.0486	0.10	
Nitrobenzene											0.0486	0.10	
2,4,6-Trinitrotoluene											0.0233	0.10	
4-AM-2,6-DNT											0.0214	0.10	
2-AM-4,6-DNT											0.0973	0.19	
2,6-Dinitrotoluene											0.0486	0.10	
2,4-Dinitrotoluene											0.0486	0.10	
2-Nitrotoluene											0.0700	0.49	
4-Nitrotoluene											0.0700	0.49	
3-Nitrotoluene											0.0603	0.49	
Nitroglycerin											0.3210	0.63	
PETN											0.2918	0.63	
3,5-Dinitroaniline											0.0243	0.97	

ND

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4316	2.3870	98		2.4316	2.4980	103	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

23LF4MW5A

TestAmerica West Sacramento

A-000021.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date:	7/3/2009 8 20	Operator:	fhk
DataFile:	LC10 I\07022009 B\A-000021 D	Vial Num:	27
Instrument ID:	LC10		

Sample : LFV9M1AC 9182192 G9F300242-5 1X

Method File: LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1016.72 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFV9M1AC 9182192 G9F300242-5 1X,0;

Misc. Info: .:1016 72,:20:1;WATER sub.,0.1,LFV9M1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.26	0.042	6206	2.5880<		18.25	0.012	11918	2.7120		0.0000	0.00	
HMX	5.30	0.009	1511	0.2460<							0.0266	0.10	45
RDX	7.89	0.029	16156	4.0800<							0.0639	0.10	45
Picric ACID											0 1229	0.98	
1,3,5-Trinitrobenzene	10.13	-0 081	287	0 0382<							0 0305	0 10	45
1,3-Dinitrobenzene											0.0492	0 10	
TETRYL											0 0492	0 10	
Nitrobenzene											0 0492	0 10	
2,4,6-Trinitrotoluene											0 0236	0.10	
4-AM-2,6-DNT											0 0216	0 10	
2-AM-4,6-DNT											0 0984	0 20	
2,6-Dinitrotoluene											0 0492	0 10	
2,4-Dinitrotoluene											0 0492	0 10	
2-Nitrotoluene											0 0708	0 49	
4-Nitrotoluene											0.0708	0 49	
3-Nitrotoluene											0 0610	0.49	
Nitroglycerin											0 3246	0 64	
PETN											0 2951	0 64	
3,5-Dinitroaniline											0 0246	0 98	

Confirmed on GC

JMC 7/11/09

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4589	2.5880	105	2.4589	2.7120	110	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

TestAmerica West Sacramento

C-000022.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/11/2009 15:14 Operator: fhk

DataFile: LC9\07102009A.B\C-000022.D Vial Num: 28

Instrument ID: LC9

Sample: **LFV9M1AC 9182192 G9F300242-5 1X**

Method File: LC9\07102009A.B\8330CNAB.M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1016.72 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFV9M1AC 9182192 G9F300242-5 1X;0;

Misc. Info: :,1016.72:,20;1,WATER sub:,0;1

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.65	-0.044	5665	2.8100<							0.0000	0.00	45
HMX	34.67	-0.007	439	0.2052<							0.0266	0.10	45
RDX	25.15	-0.016	8165	3.7740<							0.0639	0.10	45
Picric ACID											0.1229	0.97	
1,3,5-Trinitrobenzene											0.0305	0.10	
1,3-Dinitrobenzene											0.0492	0.10	
TETRYL											0.0492	0.10	
Nitrobenzene											0.0492	0.10	
2,4,6-Trinitrotoluene											0.0236	0.10	
4-AM-2,6-DNT											0.0216	0.10	
2-AM-4,6-DNT											0.0984	0.19	
2,6-Dinitrotoluene											0.0492	0.10	
2,4-Dinitrotoluene											0.0492	0.10	
2-Nitrotoluene											0.0708	0.48	
4-Nitrotoluene											0.0708	0.48	
3-Nitrotoluene											0.0610	0.48	
Nitroglycerin											0.3246	0.63	
PETN											0.2951	0.63	
3,5-Dinitroaniline											0.0246	0.97	

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4589	2.8100	114		2.4589		0	(48-143)

confirmed 7/11/09

Notes.

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 4:55 PM

Data Validation Report

Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0932

ECT.CON INC.

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ECT.CON INC.
Environmental and Computer
Technology Consultants

Data Validation Report

SDG#	PSF0932
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Date Sampled	Location	Portland ID	Sacramento ID	Explosives	Matrix
06/29/09	23L4MW01AW	PSF0932-01	LFXXW	X	Aqueous
06/29/09	23L4MW01BW	PSF0932-02	LFXX6	X	Aqueous
06/26/09	23L4MW460W	PSF0932-04	LFX11	X	Aqueous
06/26/09	23L4MW03BW	PSF0932-05	LFX12	X	Aqueous
06/26/09	23L4MW03AW	PSF0932-06	LFX15	X	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

SUMMARY

The sample set for the Camp Bonneville site consists of five aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

- Data Completeness
- Holding Times
- Calibration (Initial and Continuing)
- Blanks
- System Monitoring Compounds (Surrogate Spikes)
- Matrix Spike/Matrix Spike Duplicates
- Laboratory Control Standard Results
- Target Compound Identification
- Compound Quantification and Reported Contract Quantitation Limits

* • System Performance

* Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

FINDINGS

1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum Concentration (ppb)	Action Limit (ppm)	Action
LF1EN1	1,3,5-Trinitrobenzene	0.2088	1.044	U sample results < RL

RL - reporting limit

2. Compound Quantitiation

Positive results less than the reporting limit were qualified as estimated "J" due to the level of uncertainty.

In sample 23L4MW03BW, the positive result below the reporting limit for HMX was not confirmed. Therefore, the form one was amended to show the result as nondetected "U" at the reporting limit.

NOTES

Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

Field Duplicate Results

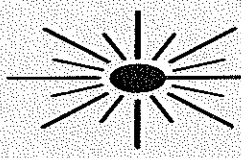
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer

8/12/09
Date

Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



ECT.CON INC.

Environmental and Computer
Technology Consultants

Annotated Form 1's
(Spreadsheet)

TestAmerica Portland

Client Sample ID: PSF0932-01

HPLC 324MW01AW

Lot-Sample #...: G9G010225-001 Work Order #...: LFXXW1AC Matrix.....: WATER
Date Sampled...: 06/29/09 Date Received..: 07/01/09
Prep Date.....: 07/02/09 Analysis Date..: 07/08/09
Prep Batch #...: 9183251
Dilution Factor: 0.97 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.19	ug/L	0.097
4-Amino-2,6-dinitrotoluene	ND	0.097	ug/L	0.021
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	ND	0.097	ug/L	0.026
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	**0.13**	**0.097**	**ug/L**	**0.063**
Tetryl	ND	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	~~0.033 J~~	0.097 U	**ug/L**	**0.030**
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	91	(79 - 111)

NOTE(S):

J Estimated result Result is less than RL.

WK 8/6/09

TestAmerica Portland

Client Sample ID: PSF0932-02

HPLC 23L4MW01BW

Lot-Sample #...: G9G010225-002 Work Order #...: LFXX61AC Matrix.....: WATER
Date Sampled...: 06/29/09 Date Received..: 07/01/09
Prep Date.....: 07/02/09 Analysis Date..: 07/08/09
Prep Batch #...: 9183251
Dilution Factor: 0.97 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.19	ug/L	0.097
4-Amino-2,6-dinitrotoluene	ND	0.097	ug/L	0.021
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	ND	0.097	ug/L	0.026
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	ND	0.097	ug/L	0.063
Tetryl	ND	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	~~0.033 J~~ 3	0.097 U	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	93	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

8/10/09

TestAmerica Portland

Client Sample ID: PSF0932-04

HPLC 234MW 960W

Lot-Sample #...:	G9G010225-003	Work Order #...:	LFX111AC	Matrix.....:	WATER
Date Sampled...:	06/26/09	Date Received..:	07/01/09		
Prep Date.....:	07/02/09	Analysis Date..:	07/08/09		
Prep Batch #...:	9183251				
Dilution Factor:	0.97	Method.....:	SW846 8330		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.19	ug/L	0.097
4-Amino-2,6-dinitrotoluene	ND	0.097	ug/L	0.021
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	**0.029 J** J	**0.097**	**ug/L**	**0.026**
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	**4.1**	**0.097**	**ug/L**	**0.063**
Tetryl	ND	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	ND	0.097	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	93	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

UF 8/4/09

TestAmerica Portland

Client Sample ID: PSF0932-05

23L4 MW03BW

HPLC

Lot-Sample #...: G9G010225-004 Work Order #...: LFX121AC Matrix.....: WATER
Date Sampled...: 06/26/09 Date Received..: 07/01/09
Prep Date.....: 07/02/09 Analysis Date..: 07/08/09
Prep Batch #...: 9183251
Dilution Factor: 0.98 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.098
4-Amino-2,6-dinitrotoluene	ND	0.098	ug/L	0.022
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	~~0.027 J~~	0.098 U	ug/L	**0.026**
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ND	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	4.1	**0.098**	ug/L	**0.064**
Tetryl	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	ND	0.098	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	93	(79 - 111)

NOTE(S):

J Estimated result Result is less than RL.

WF 8/10/09

TestAmerica Portland

Client Sample ID: PSF0932-06

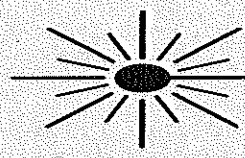
HPLC 234MW03AW

Lot-Sample #...: G9G010225-005 Work Order #...: LFX151AC Matrix.....: WATER
Date Sampled...: 06/26/09 Date Received..: 07/01/09
Prep Date.....: 07/02/09 Analysis Date..: 07/08/09
Prep Batch #...: 9183251
Dilution Factor: 0.97 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.19	ug/L	0.097
4-Amino-2,6-dinitrotoluene	ND	0.097	ug/L	0.021
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	**0.38**	**0.097**	**ug/L**	**0.026**
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	**9.4**	**0.097**	**ug/L**	**0.063**
Tetryl	ND	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	ND	0.097	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	95	(79 - 111)

WT 7/10/09



ECT.CON INC.

Environmental and Computer
Technology Consultants

Support Documentation

Laboratory Case Narrative

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc.
James D. Peyton
5261 Fountain Drive, Suite A
Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater
Client Project Number: 110002 Task 6200

TA Work Order#: PSF0932

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

163

July 31, 2009

TestAmerica - Portland
9405 S. W. Nimbus Avenue
Beaverton, Oregon 97008
(503) 906-9200
(503) 906-9210

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Michael Baker Jr., Inc.	**Date Sampled:**	6/26/2009 and 6/29/2009
Project:	Camp Bonneville Groundwater 110002 Task 6200	**Date Received:**	6/29/2009
Lab:	PSF0932		

SAMPLE RECEIPT: Samples were received intact, on ice, with chain of custody documentation. The sample temperature was measured at 2.3° C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered.

QA/QC CRITERIA: No problems were encountered during sample analysis.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: 314.0_9196313 (Perchlorate), 314.0_9196314 (Perchlorate), and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben

Estella Rieben
Project Manager

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 (503) 906-9210

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23L4MW01AW	PSF0932-01	Water	06/29/09 10:35	06/29/09 17:00
23L4MW01BW	PSF0932-02	Water	06/29/09 14:40	06/29/09 17:00
TB-261	PSF0932-03	Water	06/29/09 00:00	06/29/09 17:00
23L4MW460W	PSF0932-04	Water	06/26/09 15:00	06/29/09 17:00
23L4MW03BW	PSF0932-05	Water	06/26/09 17:15	06/29/09 17:00
23L4MW03AW	PSF0932-06	Water	06/26/09 18:15	06/29/09 17:00

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

July 28, 2009

TestAmerica Project Number: G9G010225
PO/Contract: PSF0932

Estella Rieben
TestAmerica Portland
Nimbus Corporate Center
9405 SW Nimbus Ave
Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on July 1, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver

Linda C. Laver
Project Manager

Case Narrative

TestAmerica West Sacramento Project Number G9G010225

General Comments

The chain of custody (coc) indicates that the samples containers were preserved with Hydrochloric Acid (HCL). These analyses do not require acid preservation. The pH of the samples was checked and they were at a pH of 7. According to Ms. Rieben, the coc was incorrect and the samples were not preserved.

WATER, 8330, Nitroaromatics & Nitramines
Samples: 1, 2, 3, 4, 5
There was insufficient sample volume to prepare a matrix spike/matrix spike duplicate (MS/MSD) pair with this extraction batch.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G9G010225

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LFXXW	1	PSF0932-01	6/29/2009 10:35 AM	7/1/2009 09:45 AM
LFXX6	2	PSF0932-02	6/29/2009 02:40 PM	7/1/2009 09:45 AM
LFX11	3	PSF0932-04	6/26/2009 03:00 PM	7/1/2009 09:45 AM
LFX12	4	PSF0932-05	6/26/2009 05:15 PM	7/1/2009 09:45 AM
LFX15	5	PSF0932-06	6/26/2009 06:15 PM	7/1/2009 09:45 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200

CHAIN OF CUSTODY REPORT

Work Order #: PSF0932

CLIENT: Michael Baker Jr Inc

REPORT TO: Margaret James

ADDRESS: 5261 Fountain Drive, Suite A, Crown Point IN 46307

PHONE: 219 736 0663 FAX: 219 755 0633

INVOICE TO: Baker ← Same Address

P.O. NUMBER: 110002 Task 6200

PROJECT NAME:

PROJECT NUMBER:

SAMPLED BY:

TURNAROUND REQUEST in Business Days*

Organic & Inorganic Analyses: 10 (STD) · 7 · 5 · 4 · 3 · 2 · 1 · <1

Petroleum Hydrocarbon Analyses: 5 (STD) · 4 · 3 · 2 · 1 · <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOCs EPA 8260B NO TICS	EXPLOSIVES 8330	PERCHLORATE 314.1	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
Preservative			HCL	N/A	N/A				
1	23L4MW01AW	6/29/2009 - 10.35	X	X	X	W	6	NO TICS	
2	23L4MW01BW	6/29/2009 - 14:40	X	X	X	W	6	NO TICS	
3	TB-261	6/29/09 - N/A	X						
4	23L4MW460W	6/26/09 - 1500	X	X	X	W	6	NO TICS	
5	23L4MW03BW	6/26/09 - 1715	X	X	X	W	6	NO TICS	
6	23L4MW03AW	6/26/09 - 1815	X	X	X	W	6	NO TICS	
7									
8									
9									
10									

RELEASED BY: [signature] PRINT NAME: William Pelkey FIRM: Baker DATE: 6/29/09 TIME: 15:15

RECEIVED BY: [signature] PRINT NAME: Bob F FIRM: TAP DATE: 6/29/09 TIME: 15:30

RELEASED BY: [signature] PRINT NAME: Bob F FIRM: TAP DATE: 6/29/09 TIME: 17:00

RECEIVED BY: PRINT NAME: [signature] FIRM: TAP DATE: 6/29/09 TIME: 1700

ADDITIONAL REMARKS:

TEMP: 2.3 C

PAGE OF

TAL-1000(0408)

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0932 Date/Time Received: 6/24/09 1700

Client Name and Project: Michael Baker

~~CBAT~~ BIE Camp Bonneville GW

Time Zone:
☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures: 2.1 c

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice
__Ice Melted
__W/in 4 Hrs of collection
__Other:

Initials: BIE

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD.
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Proper Container and preservatives used? If no, document on NOD.
☒	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	9. HF Dilution required?
	☒	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☒	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☐	☒	12. Is the "Sampled by" section of the COC completed?
☐	☒	☐	13. Were VOA/Oil Syringe samples without headspace?
☐	☒	☐	14. Were VOA vials preserved? ☒HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☒	15. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☒	☐	☐	19. Are analyses with short holding times received in hold?
	☒	☐	20. Was Standard Turn Around (TAT) requested?
	☒	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0932

Login Checks:

Initials: BVE

N/A	Yes	No	
	☒	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☒	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☒	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☐	☒	☐	25. Were special log in instructions read and followed?
	☒	☐	26. Were tests logged checked against the COC?
☒	☐	☐	27. Were rush notices printed and delivered?
☒	☐	☐	28. Were short hold notices printed and delivered?
☐	☒	☐	29. Were subcontract COCs printed?
☒	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: BVE

N/A	Yes	No	
☐	☒	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☒	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☒	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☒	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☒	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☒	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL-Portland PM LL LOG # 59289

LOT# (QUANTIMS ID) G9G010225 QUOTE# 53765 LOCATION WS B

		Initials	Date
DATE RECEIVED	7-1-09 TIME RECEIVED 945	as	7-1-09

DELIVERED BY
- ☒ FEDEX
- ☐ CA OVERNIGHT
- ☐ CLIENT
- ☐ AIRBORNE
- ☐ GOLDENSTATE
- ☐ DHL
- ☐ UPS
- ☐ BAX GLOBAL
- ☐ GO-GETTERS
- ☐ TAL COURIER
- ☐ VALLEY LOGISTICS
- ☐ MORGAN HILL COURIER
- ☐ OTHER

CUSTODY SEAL STATUS ☒ INTACT ☐ BROKEN ☐ N/A

CUSTODY SEAL #(S) 204345

SHIPPPING CONTAINER(S) ☒ TAL ☐ CLIENT ☐ N/A

TEMPERTURE RECORD (IN °C) IR 4 ☐ 5 ☒ ☐ OTHER

COC #(S) NA

TEMPERATURE BLANK Observed: 0 Corrected: 2

SAMPLE TEMPERATURE

Observed: 2 1 2 Average: 2 Corrected Average: 2

COLLECTOR'S NAME: ☐ Verified from COC ☒ Not on COC

pH MEASURED ☒ YES ☐ ANOMALY ~~☐ N/A~~ as 7-1-09

LABELED BY.

LABELS CHECKED BY.

PEER REVIEW ☒ N/A

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM ☐ N/A

VOA-ENCORES ☒ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☒ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes:

PT & AG B with pH of 7, COC lists HCL

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

Worksheets

HOLDING TIMES

SAMPLE DATE	SAMPLE ID	Portland LAB ID	Sacramento Lab ID	Matrix	Prep	Anal
06/29/09	23L4MW01AW	PSF0932-01	LFXXW	Aq	07/02/09	7/8/09 1X
06/29/09	23L4MW01BW	PSF0932-02	LFXX6	Aq	07/02/09	7/8/09 1X
06/26/09	23L4MW460W	PSF0932-04	LFX11	Aq	07/02/09	7/8/09 1X
06/26/09	23L4MW03BW	PSF0932-05	LFX12	Aq	07/02/09	7/8/09 1X
06/26/09	23L4MW03AW	PSF0932-06	LFX15	Aq	07/02/09	7/8/09 1X

7	days from collection to extraction		
Sample Date	6/26/2009	Extract By	7/3/2009
7	days from collection to extraction		
Sample Date	6/29/2009	Extract By	7/6/2009
40	days fromextraction to analysis		
Sample Date	7/2/2009	Extract By	8/11/2009

TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client?	No
Did Sample Form Is match the target compound list	NA
Were required quantitation limits provided by the client?	No
Did all compounds meet the required quantitation limits?	NA

SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN I		DF	ACTION
All IN					

Were surrogate RTs within windows established by the ICAL?	Yes
Were there any transcription errors between the raw data and Form 2?	No
Were laboratory acceptance limits used as the basis for validation?	30-150
Did the laboratory provide CLP Form II or equivlaent?	Yes

01AW

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	FI
34-DNT A	2.233	2.5	89.3	91
34-DNT C	2.456	2.5	98.2	

MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

NonePresent

LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LF1EN1	All Parameters	OK	NA	NA	none, ND

Were laboratory acceptance limits used as the basis for validation?	Yes
Did the laboratory provide CLP Form III or equivlaent?	Yes
Were chromatograms and quan reports present for all LCS/LCDs?	Yes

LF1EN1 RDX

All Parameters	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	0.97	1	97.0	127

%R = (Amount Found/Amount Spiked)*100

BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION
LF1EN1	123-Tnbenzene	0.2088	5	1.044	U

appears on A channel but not on C

NOTE Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

CALIBRATION

Initial

Are chromatograms and quan reports present for all ICAL standards?	Yes
Are CLP For VIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What linearity criteria was used?	20% RSD or 0.99
Were RT window documented?	Yes

Continuing

Are chromatograms and quan reports present for all CCV standards?	Yes
Are CLP Form VIIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What %D criteria was used?	25% D
Have all samples and standards been listed on an Analytical Sequence?	Yes
Was a proper analytical sequence followed?	Yes

INITIAL CALIBRATION - A

Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5.156
Instrument	A	Calcd Avg CF	77.892	Cald %RSD	5.156
Compound	RDX				
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/Avg CF)*100	
		CF8	79.815		

CONTINUING CALIBRATION A

Date	7/8/2009		
Time	1750		
Instrument	A		
Compound	HMX		
Reported Conc	212	Rptd %D	6
Calculated Conc	211.653	Cald %D	-5.83
Response	25610	ICAL CF	200
CF	121	CCV CF	211.7
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

INITIAL CALIBRATION - C

Date	6/9/2009	Rptd Avg CF	42.55812	Rptd %RSD	4.852
Instrument	C	Calcd Avg CF	42.558	Cald %RSD	4.852
Compound	RDX				
Reported CF	42.585	CF1	45.40	STD DEV	2
Calculated CF	42.78	CF2	43.70		
		CF3	42.75		
Response	8556	CF4	43.30		
Conc	200	CF5	42.16		
		CF6	42.59		
	CF = (H/C)	CF7	38.118	%RSD = (Std Dev/Avg CF)*100	
		CF8	42.452		

CONTINUING CALIBRATION C

Date	7/10/2009		
Time	1932		
Instrument	C		
Compound	HMX		
Reported Conc	82.89	Rptd %D	17
Calculated Conc	82.894	Cald %D	17.11
Response	3416	ICAL CF	100
CF	41.20913	CCV CF	82.9
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

FIELD DUPLICATES

COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD
PCA					#DIV/0!

NOTES Samples are not qualified on this basis.

COMPOUND IDENTIFICATION AND QUANTITATION

Has a F10 been completed for every sample containing positive results?	Yes
Was RT data presented on the form?	NA
Are RTs within the established winodws?	Yes
Any transcription or calculation errors?	No
Any false positives, negative peaks, shouldering, etc.?	No
Was GCMS confirmation needed for results > 10 µg/ml?	NA
Were percent differences or relative percent differences calculated?	NA
Are percent differences/RPDs greater than 25%?	NA
Are there any transcription errors?	No
Are Form1s present for all field and quality control samples?	No
Are chromatograms and quan reports present for all samples?	Yes
Are RLs adjusted to reflect sample dilutions, percent solids, etc.?	Yes
For soils, any precent solids <50%?	No
For soils, any precent solids <10%?	No

23L4MW01AW RDX 0.13 µg/L

	A	C
response	524	269
cf	77.89163	42.55812
final vol ml	20	20
initial L	1.02157	1.02157
df	1	1
calculated	0.1317	0.1237

PERCENT DIFFERENCE BETWEEN COLUMNS

SAMPLE	COMPOUND	A	C	RPD	QUALIFIER
23L4MW01AW	RDX	0.1317	0.1237	6.3	none
23L4MW460W	HMX	0.028	0.0422	-40.5	none
	RDX	4.125	3.799	8.2	none
23L4MW03BW	HMX	0.0278	not confirmed	#VALUE!	none
	RDX	4.089	3.71	9.7	none
23L4MW03AW	HMX	0.3798	0.3908	-2.9	none
	RDX	9.369	8.736	7.0	none

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9G010225 Work Order #...: LF1EN1AC Matrix.....: WATER
LCS Lot-Sample#: G9G020000-251
Prep Date.....: 07/02/09 Analysis Date..: 07/08/09
Prep Batch #...: 9183251
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroglycerin	98	(85 - 115)	SW846 8330
PETN	104	(84 - 117)	SW846 8330
Picric Acid	66	(21 - 118)	SW846 8330
2-Amino-4,6-dinitrotoluene	97	(77 - 123)	SW846 8330
4-Amino-2,6-dinitrotoluene	91	(68 - 113)	SW846 8330
1,3-Dinitrobenzene	98	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	94	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	95	(71 - 119)	SW846 8330
HMX	91	(67 - 115)	SW846 8330
Nitrobenzene	94	(69 - 119)	SW846 8330
2-Nitrotoluene	87	(64 - 120)	SW846 8330
3-Nitrotoluene	89	(67 - 114)	SW846 8330
4-Nitrotoluene	89	(67 - 115)	SW846 8330
RDX	97	(68 - 122)	SW846 8330
Tetryl	77	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	106	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	88	(69 - 111)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	93	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G9G010225 Work Order #...: LF1EN1AC Matrix.....: WATER
LCS Lot-Sample#: G9G020000-251
Prep Date.....: 07/02/09 Analysis Date..: 07/08/09
Prep Batch #...: 9183251
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroglycerin	5.00	4.92	ug/L	98	SW846 8330
PETN	5.00	5.18	ug/L	104	SW846 8330
Picric Acid	5.00	3.28	ug/L	66	SW846 8330
2-Amino-4,6-dinitrotoluene	1.00	0.974	ug/L	97	SW846 8330
4-Amino-2,6-dinitrotoluene	1.00	0.909	ug/L	91	SW846 8330
1,3-Dinitrobenzene	1.00	0.976	ug/L	98	SW846 8330
2,4-Dinitrotoluene	1.00	0.936	ug/L	94	SW846 8330
2,6-Dinitrotoluene	1.00	0.946	ug/L	95	SW846 8330
HMX	1.00	0.914	ug/L	91	SW846 8330
Nitrobenzene	1.00	0.943	ug/L	94	SW846 8330
2-Nitrotoluene	1.00	0.869	ug/L	87	SW846 8330
3-Nitrotoluene	1.00	0.888	ug/L	89	SW846 8330
4-Nitrotoluene	1.00	0.892	ug/L	89	SW846 8330
RDX	1.00	0.970	ug/L	97	SW846 8330
Tetryl	1.00	0.772	ug/L	77	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.06	ug/L	106	SW846 8330
2,4,6-Trinitrotoluene	1.00	0.880	ug/L	88	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	93	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

HPLC

Client Lot #...: G9G010225 Work Order #...: LF1EN1AA Matrix.....: WATER
MB Lot-Sample #: G9G020000-251

Prep Date.....: 07/02/09
Analysis Date..: 07/08/09 Prep Batch #...: 9183251
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	94	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

TestAmerica West Sacramento

A-000004.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/8/2009 18:41 Operator: fhk
DataFile: LC10 I\07082009 B\A-000004 D Vial Num: 11
Instrument ID: LC10

Sample : **LF1EN1AA 9183251 G9G020000-251 B 1X**

Method File: LC10 I\07082009.B\8330AB M
Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1000 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:
Samp. Info: LF1EN1AA 9183251 G9G020000-251 B 1X,0,
Misc. Info: ;,1000,,20;1;WATER sub,,0.1;LF1EN1AA

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	0.041	5555	2.3550<		18.23	0.044	10715	2.4790		0.0000	0.00	
HMX											0.0270	0.10	
RDX											0.0650	0.10	
Picric ACID											0.1250	1.00	
1,3,5-Trinitrobenzene	10.37	0.184	1541	0.2088<							0.0310	0.10	45
1,3-Dinitrobenzene											0.0500	0.10	
TETRYL											0.0500	0.10	
Nitrobenzene											0.0500	0.10	
2,4,6-Trinitrotoluene											0.0240	0.10	
4-AM-2,6-DNT											0.0220	0.10	
2-AM-4,6-DNT											0.1000	0.20	
2,6-Dinitrotoluene											0.0500	0.10	
2,4-Dinitrotoluene											0.0500	0.10	
2-Nitrotoluene											0.0720	0.50	
4-Nitrotoluene											0.0720	0.50	
3-Nitrotoluene											0.0620	0.50	
Nitroglycerin											0.3300	0.65	
PETN											0.3000	0.65	
3,5-Dinitroaniline											0.0250	1.00	

Not confirmed on CW 19
7/11/09

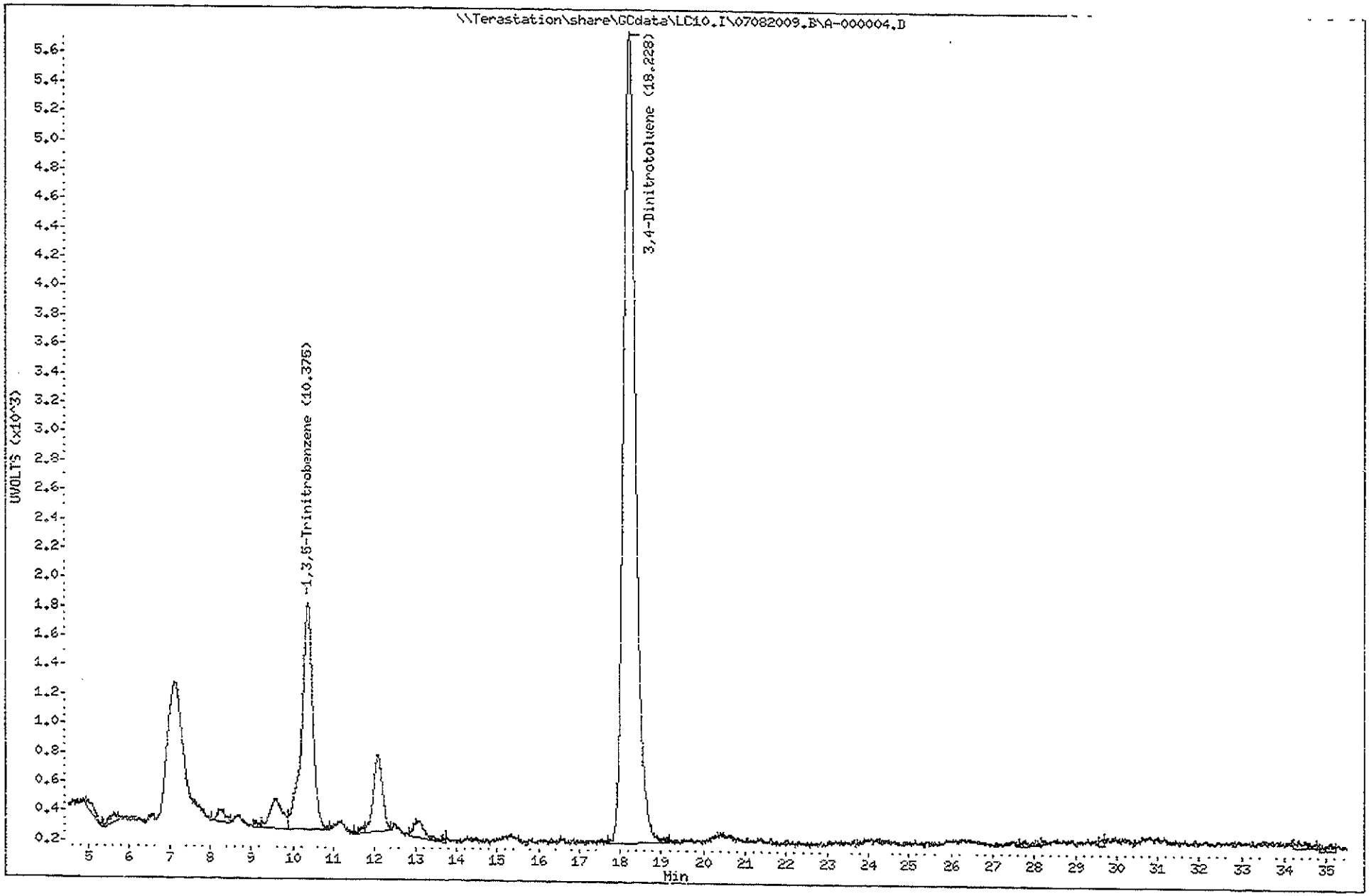
Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5000	2.3550	94		2.5000	2.4790	99	(79-111)

Notes
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Data File: \\Terastation\share\GCdata\LC10.I\07082009.B\A-000004.D
Date : 08-JUL-2009 18:41
Client ID:
Sample Info: LF1EN1AA 9183251 G9G020000-251 B 1X;0;
Volume Injected (uL): 500.0
Column phase: SYNERGI HYDRORP C18

Instrument: LC10.1
Operator: fhk
Column diameter: 4.60



TestAmerica West Sacramento

C-000004.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/10/2009 20:34 Operator: ftk
DataFile: LC9 I\07102009A B\C-000004 D Vial Num: 11
Instrument ID: LC9

Sample: **LF1EN1AA 9183251 G9G020000-251 B 1X**

Method File: LC9 I\07102009A B\8330CNAB M
Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1000 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:
Samp. Info: LF1EN1AA 9183251 G9G020000-251 B 1X,0;
Misc. Info: ;;1000,;20;1;WATER sub;,0.1;LF1EN1AA

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.78	0.093	5055	2.5500<							0.0000	0.00	45
HMX											0.0270	0.10	
RDX											0.0650	0.10	
Picric ACID											0.1250	1.00	
1,3,5-Trinitrobenzene											0.0310	0.10	
1,3-Dinitrobenzene											0.0500	0.10	
TETRYL											0.0500	0.10	
Nitrobenzene											0.0500	0.10	
2,4,6 Trinitrotoluene											0.0240	0.10	
4-AM-2,6-DNT											0.0220	0.10	
2-AM-4,6-DNT											0.1000	0.20	
2,6-Dinitrotoluene											0.0500	0.10	
2,4-Dinitrotoluene											0.0500	0.10	
2-Nitrotoluene											0.0720	0.50	
4-Nitrotoluene											0.0720	0.50	
3-Nitrotoluene											0.0620	0.50	
Nitroglycerin											0.3300	0.65	
PETN											0.3000	0.65	
3,5-Dinitroaniline											0.0250	1.00	

Not confirmed ND
7/11/09

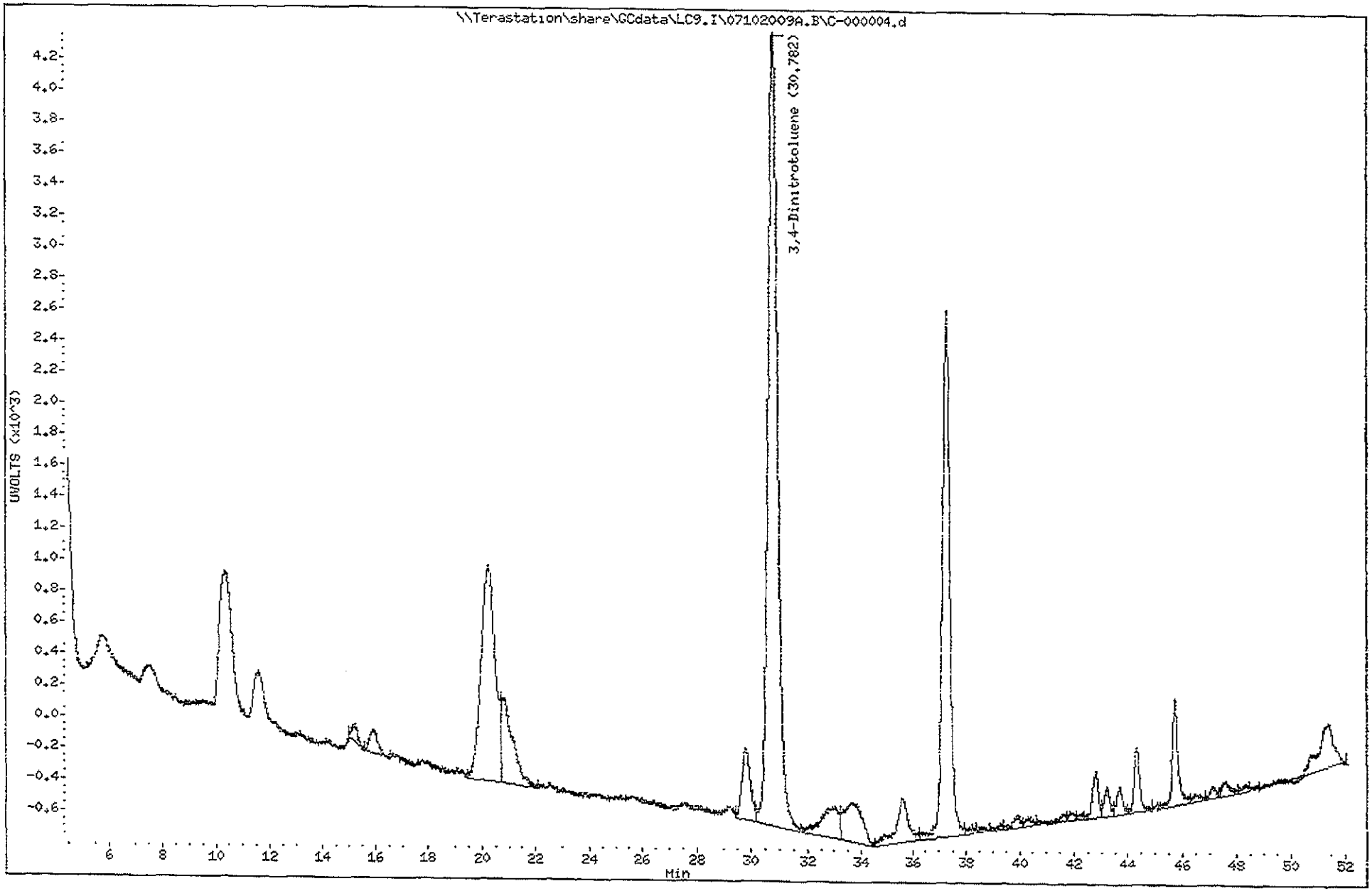
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5000	2.5500	102	2.5000		0	(48-143)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Data File: \\Terastation\share\GCdata\LC9.I\07102009A.B\C-000004.d
Date : 10-JUL-2009 20:34
Client ID:
Sample Info: LF1EN1AA 9183251 G9G020000-251 B 1X;0:
Volume Injected (uL): 500.0
Column phase: Agilent ZorbaxCyano

Instrument: LC9.i
Operator: fhk
Column diameter: 4.60



QC DATA ASSOCIATION SUMMARY

G9G010225

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9183251	
002	WATER	SW846 8330		9183251	
003	WATER	SW846 8330		9183251	
004	WATER	SW846 8330		9183251	
005	WATER	SW846 8330		9183251	

TestAmerica West Sacramento
ESC-Extraction Master Sheet

DE

Holding Time Due: 7-2-09 / 7-6-09
BATCH #: 9183251
Test #: 8330-L picric acid

Project Due: 7-14-09
Initiated By: MD
Extn Comp'd By: TP

Date: 7-2-09
Date: 7/8/09

QC Code	Lab ID	Sample Size / Initial Mass	Final Volume / Final Mass	Difference in Mass
B	MB	1L WS	sheet	
C	LCS			
	696010225-01	7-2-09		
	696010225-02	MD		
	696010225-03			
	696010225-04			
	696010225-05			

7/8/09 TP

SOP No.: WS-LL-0809

EXTRACTION COMMENTS:

QC Codes	Standard Information				
	Volume	STD ID	Exp. Date	STD Name/Conc	ppm/ppb
MB	50ml	096CSV0172	12-10-09	3,4 DNT 50ug/ml	0.50
C	20ml	096CSV0037	7-17-09	8330-DNA 50ug/ml	0.50
LCSND	100ml	096CSV0149	11-4-09	NG/RDX 50ug/ml	1.00
LCSND	100ml	096CSV0029	7-17-09	PICRIC ACID 50ug/ml	5.0

Spiked By / Date: MD - 7-2-09
Witnessed By / Date: TP 7/02/09

QC Codes: B = MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/08/09
Time: 10:59:23

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
_	_	MS/MSD	Y	_	Vial contains correct volume
			Y	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGrou
_ Bench Sheet Copied per COC

Extractionist: 000915 Horacio J. Arauz

Concentrationist: 002448 Tuan Q. Phan

****
* *
* QC BATCH: 9183251 *
* *
****

PREP DATE: 7/02/09 9:30
COMP DATE: 7/08/09 10:00

Reviewer/Date: ARAUZH / 7/02/09

Nitroaromatics & Nitramines: Explosives (8330)
SOLID PHASE EXTRACTION (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/06/09	7/14/09	G9G010225-001 LFXXW-1-AC	R	B7	A0	WATER	1021.57mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/06/09	7/14/09	G9G010225-002 LFXX6-1-AC	R	B7	A0	WATER	1022.4mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9G010225-003 LFX11-1-AC	R	B7	A0	WATER	1024.15mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9G010225-004 LFX12-1-AC	R	B7	A0	WATER	1019.2mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/03/09	7/14/09	G9G010225-005 LFX15-1-AC	R	B7	A0	WATER	1021.92mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/06/09	0/00/00	G9G020000-251 LF1EN-1-AAB		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV0172
COMMENTS:															
7/06/09	0/00/00	G9G020000-251 LF1EN-1-ACC		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAC/ACN	4.5	HOAC/ACN	5.0	20UL-09GCSV0037,SEE B.S 50UL-09GCSV0172
COMMENTS:															

100UL-09GCSV0149;100UL-09GCSV0039, SPE-COLUNM WATER 003339096A;
.45 FILTER MILLIPORE LOT R5PN29184; SODIUM CHLORIDE MALLINCKRODT LOT H07582
.1% HOAC/ACN 2991-95F; .1% HOAC/H2O 2991-87B

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)

NUMBER OF WORK ORDERS IN BATCH: 7

A

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 06102009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUN-2009	14:42	fhk	Blank	A-000001.	0 g	0 mL	1	
10-JUN-2009	15:33	fhk	STD_1 09GCSV0048 5.0/0/0/0ng/m	A-000002.	0 g	0 mL	1	
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049 10/20/10/10ng	A-000003.	0 g	0 mL	1	
10-JUN-2009	17:14	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000004.	0 g	0 mL	1	Bad Std
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051 50/100/50/50n	A-000005.	0 g	0 mL	1	
10-JUN-2009	18:56	fhk	STD_5 09GCSV0053 100/200/100/1	A-000006.	0 g	0 mL	1	
10-JUN-2009	19:46	fhk	STD_6 09GCSV0054 200/500/200/2	A-000007.	0 g	0 mL	1	
10-JUN-2009	20:37	fhk	STD_7 09GCSC0055 500/1000/500/	A-000008.	0 g	0 mL	1	
10-JUN-2009	21:28	fhk	STD_8 09GCSV0056 1000/2000/100	A-000009.	0 g	0 mL	1	
10-JUN-2009	22:18	fhk	Blank	A-000010.	0 g	0 mL	1	
10-JUN-2009	23:09	fhk	ICV_6 08GCSV0397 100/200/100/1	A-000011.	0 g	0 mL	1	
11-JUN-2009	00:00	fhk	STD_5 09GCSV0053 100/200/100/1	A-000012.	0 g	0 mL	1	
11-JUN-2009	00:50	fhk	Surrogate 100ng/mL	A-000013.	0 g	0 mL	1	
11-JUN-2009	12:56	fhk	Primer	A-000014.	0 g	0 mL	1	
11-JUN-2009	13:47	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000015.	0 g	0 mL	1	Re-inj restart New Std

JJK 6/11/09

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
2 HMX	119	120	115	125	123	124		
	116	123					121	3.066
3 RDX	81.80000	75.90000	77.15000	80.77000	78.45000	80.13000		
	69.16600	79.81500					77.89163	5.156
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Picric ACID	+++++	+++++	91.72000	85.68000	84.85500	84.88200		
	74.63400	74.87800					82.77483	8.120
6 1,3,5-Trinitrobenzene	161	146	145	150	147	148		
	136	147					148	4.610
7 1,3-Dinitrobenzene	145	142	138	142	139	142		
	128	141					140	3.715
8 3,5-Dinitroaniline	97.20000	90.80000	89.35000	91.80000	88.83000	90.35000		
	82.20800	89.25000					89.97350	4.581
9 TETRYL	97.60000	95.10000	77.40000	96.02000	94.31000	95.06000		
	92.43000	94.40900					92.79113	6.888

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
10 Nitrobenzene	63.80000	62.30000	56.55000	61.44000	61.06000	62.26000		
	56.02600	61.95700					60.67412	4.659
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	94.80000	90.20000	81.90000	88.78000	87.04000	87.55500		
	84.22200	87.17800					87.70937	4.401
13 4-AM-2,6-DNT	67.00000	63.30000	60.85000	63.26000	61.61000	62.67000		
	58.65400	61.14600					62.31125	3.901
14 2-AM-4,6-DNT	74.80000	75.80000	73.10000	75.54000	73.53000	74.39000		
	69.18400	72.13500					73.55987	2.932
15 2,6-Dinitrotoluene	57.60000	53.30000	51.90000	53.68000	53.03000	53.21500		
	50.43000	52.74900					53.23800	3.835
16 2,4-Dinitrotoluene	93.00000	86.50000	82.60000	86.20000	84.72000	85.49000		
	81.43200	85.05700					85.62488	4.031
17 2-Nitrotoluene	40.80000	37.40000	33.20000	35.64000	35.21000	35.77500		
	33.97400	35.45000					35.93113	6.486
18 4-Nitrotoluene	48.00000	46.40000	40.75000	43.56000	43.22000	43.56500		
	41.67600	43.21300					43.79800	5.390
19 3-Nitrotoluene	47.00000	44.60000	39.85000	43.24000	42.93000	43.08000		
	41.51600	42.82400					43.13000	4.852
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	50.10000	46.40000	46.48000	45.87000	46.85500		
	46.08000	48.38600					47.16729	3.251

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\8
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD	
2 HMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 RDX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
5 Picric ACID	+++++	134	126	125	125	110	110	122	8.080	
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 3,5-Dinitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 TETRYL	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
10 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Nitroglycerin	+++++	61.25000	59.82000	60.58000	61.86500	59.75400	61.73900	60.83467	1.527
12 2,4,6-Trinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4-AM-2,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 2-AM-4,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 2-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 3-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 PETN	+++++	32.65000	30.36000	31.91000	32.25000	32.38000	32.75200	32.05033	2.748

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\8
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
$ 1 3,4-Dinitrotoluene	★ +++++ 93.14200	90.40000	88.76000	88.28000	90.51000	88.03667		89.85478	2.142

★ Level 2 dropped due to poor integration
JLK 6/12/09

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 6/10/2009 23:09 Operator: fhk

DataFile: LC10 \05102009 B\A-000011.D Vial Num: 20

Instrument ID: LC10

Method 8330 Target Analyte Results

Sample: **ICV_6 08GCSV0397 100/200/100/100ng/mL**

Method File: LC10 \05102009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub Spike List:

Samp. Info: ICV_6 08GCSV0397 100/200/100/100ng/mL;2

Misc. Info: :6; ; ; ;3;CAL.sub; ,0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	Fails	Not in mix				200	-100%	Fails		(±15)	
HMX	5.29	26153	216.4000<	200	8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.84	16084	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.00	41754	504.4000 ✓	500	1%	Acceptable		9.00	61509	505.5000< ✓	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.25	27834	199.2000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.30	17776	191.6000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000< ✓	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.28	10445	196.2000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.00	16653	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.49	8451	195.9000< ✓	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206.3000< ✓	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.10	5830	181.9000< ✓	200	-9%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 6/11/2009 3:26 PM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

A

Inst ID: LC10 Batch ID: 07082009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
08-JUL-2009	16:09	fhk	Primer	A-000001.	0 g	0 mL	1	
08-JUL-2009	16:59	fhk	Primer	A-000002.	0 g	0 mL	1	
08-JUL-2009	17:50	fhk	STD_6 09GCSV0054 .4K/ 2/.2/.2/	A-000003.	0 g	0 mL	1	
08-JUL-2009	18:41	fhk	LF1EN1AA 9183251 G9G020000-251	A-000004.	1000 mL	20 mL	1	
08-JUL-2009	19:31	fhk	LF1EN1AC 9183251 G9G020000-251	A-000005.	1000 mL	20 mL	1	
08-JUL-2009	20:22	fhk	LFXXW1AC 9183251 G9G010225-1 1	A-000006.	1021.57 mL	20 mL	1	
08-JUL-2009	21:12	fhk	LFXX61AC 9183251 G9G010225-2 1	A-000007.	1022.4 mL	20 mL	1	
08-JUL-2009	22:03	fhk	LFX111AC 9183251 G9G010225-3 1	A-000008	1024.15 mL	20 mL	1	
08-JUL-2009	22:53	fhk	LFX121AC 9183251 G9G010225-4 1	A-000009	1019.2 mL	20 mL	1	
08-JUL-2009	23:44	fhk	LFX151AC 9183251 G9G010225-5 1	A-000010.	1021.92 mL	20 mL	1	
09-JUL-2009	00:35	fhk	STD_5 09GCSV0053 .2K/.1/.1/.1/	A-000011.	0 g	0 mL	1	
09-JUL-2009	01:25	fhk	LF3161AA 9187206 G9G060000-206	A-000012.	1000 mL	20 mL	1	
09-JUL-2009	02:16	fhk	LF3161AC 9187206 G9G060000-206	A-000013.	1000 mL	20 mL	1	
09-JUL-2009	03:06	fhk	LF3H41AC 9187206 G9G030156-1 1	A-000014	1007.3 mL	20 mL	1	
09-JUL-2009	03:57	fhk	LF3H51AC 9187206 G9G030156-2 1	A-000015.	996.15 mL	20 mL	1	
09-JUL-2009	04:47	fhk	LF3H61AC 9187206 G9G030156-3 1	A-000016.	1005.3 mL	20 mL	1	
09-JUL-2009	05:38	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000017.	0 g	0 mL	1	

TestAmerica West Sacramento

A-000003.D

Chromatography Summary

Injection Date: 7/8/2009 17 50 Operator: ftk

DataFile: LC10\07082009 B\A-000003 D Vial Num: 2

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Method File: LC10 \07082009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
IX	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 4K/ 2/ 2/.2/ 2;2

Misc. Info: ,6. , , ,3,CAL.sub, ,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.19	9699	205.6000<	200	3%	Acceptable		18 18	18512	214 1000	200	7%	Acceptable		(±15)	
HMX	5 28	25610	212 0000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7 84	16375	210 2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8 99	41964	507 0000	500	1%	Acceptable		8 99	61727	507 3000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10 19	30519	206 7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 25	29220	209 2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 32	19026	205 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.17	12927	213 0000<	200	7%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.54	18133	206.7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.53	12950	207.8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18 59	15167	206 2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.32	10979	206.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21 04	17596	205 5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24 75	7372	205 2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26 57	8973	204 9000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28 57	8900	206.4000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15 79	12780	210 1000<	200	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 20	6780	211.5000<	200	6%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18618	206 9000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/8/2009 7:05 PM

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 7/9/2009 0:35 Operator: ftk

DataFile: LC10 I\07082009.B\A-000011.D Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample: **STD_5 09GCSV0053 .2K/.1/.1/.1/.1**

Method File: LC10 I\07082009 B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_5 09GCSV0053 2K/.1/.1/.1/.1;2

Misc. Info: :5: , , .3,CAL.sub: .0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.20	4739	100.5000<	100	1%	Acceptable		18.21	9063	104.8000	100	5%	Acceptable		(±15)	
HMX	5.29	12630	104.5000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7.85	8029	103.1000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9.05	16777	202.7000	200	1%	Acceptable		9.06	24679	202.8000<	200	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	15097	102.3000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.26	14436	103.3000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14.34	9407	101.4000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15.18	6290	103.7000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.56	8976	102.3000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.55	6365	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.62	7472	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.35	5434	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.06	8697	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.79	3631	101.0000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26.60	4405	100.6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28.62	4379	101.5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15.81	6320	103.9000<	100	4%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30.24	3380	105.4000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.01	9130	101.5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/9/2009 9:27 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 06092009
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
09-JUN-2009	17:40	fhk	Primer	C-000001.	0 g	0 mL	1	
09-JUN-2009	18:46	fhk	Primer	C-000002	0 g	0 mL	1	
09-JUN-2009	19:49	fhk	BLANK	C-000003.	0 g	0 mL	1	
09-JUN-2009	20:53	fhk	STD_1 09GCSV0048 5/0/0/0/0	C-000004.	0 g	0 mL	1	
09-JUN-2009	21 56	fhk	STD_2 09GCSV0049 10/20/10/10/1	C-000005.	0 g	0 mL	1	
09-JUN-2009	22:59	fhk	STD_3 09GCSV0050 20/50/20/20/2	C-000006	0 g	0 mL	1	
10-JUN-2009	00:03	fhk	STD_4 09GCSV0051 50/100/50/50/	C-000007.	0 g	0 mL	1	
10-JUN-2009	01:07	fhk	STD_5 09GCSV0053 100/200/100/1	C-000008.	0 g	0 mL	1	
10-JUN-2009	02:11	fhk	STD_6 09GCSV0054 200/500/200/2	C-000009.	0 g	0 mL	1	
10-JUN-2009	03:16	fhk	STD_7 09GCSV0055 500/1000/500/	C-000010.	0 g	0 mL	1	
10-JUN-2009	04:20	fhk	STD_8 09GCSV0056 1000/2000/1K/	C-000011.	0 g	0 mL	1	
10-JUN-2009	05:25	fhk	BLANK	C-000012.	0 g	0 mL	1	
10-JUN-2009	06:29	fhk	ICV_6 08GCSV0397 200/500/200/2	C-000013.	0 g	0 mL	1	
10-JUN-2009	07.33	fhk	STD_5 09GCSV0053 100/200/100/1	C-000014.	0 g	0 mL	1	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000004.d
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	500.000 Level 7	1000.000 Level 8							
2 HMX	49.60000	43.70000	40.45000	40.46000	39.51000	39.31500			
	37.41800	39.22000					41.20913	9.288	
3 RDX	45.40000	43.70000	42.75000	43.30000	42.16000	42.58500			
	38.11800	42.45200					42.55812	4.652	
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
5 Picric ACID	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
6 1,3,5-Trinitrobenzene	66.80000	67.20000	67.60000	68.82000	67.02000	67.61500			
	63.46600	67.27500					66.97450	2.306	
7 1,3-Dinitrobenzene	95.20000	88.70000	87.25000	89.40000	87.58000	88.56500			
	79.37000	88.38800					88.05662	4.893	
8 3,5-Dinitroaniline	71.20000	68.50000	68.65000	68.54000	66.12000	66.97500			
	60.97200	65.89900					67.10700	4.478	
9 TETRYL	93.20000	86.50000	85.70000	86.92000	86.05000	86.26500			
	85.04400	86.33600					87.00187	2.950	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
10 Nitrobenzene	39.40000	42.00000	38.65000	40.64000	39.79000	40.66500		
	35.35200	40.30500					39.60025	5.005
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	104	91.00000	81.00000	77.16000	74.32000	73.90500		
	71.97000	73.60800					80.89538	13.892
13 4-AM-2,6-DNT	68.80000	69.80000	68.05000	67.74000	65.37000	65.85500		
	64.80800	65.14700					66.94625	2.818
14 2-AM-4,6-DNT	80.20000	76.80000	75.45000	74.54000	72.25000	73.07500		
	69.79400	72.19800					74.28838	4.343
15 2,6-Dinitrotoluene	54.80000	52.40000	49.70000	49.88000	49.11000	49.44000		
	45.69200	49.41100					50.05412	5.280
16 2,4-Dinitrotoluene	83.00000	82.40000	79.60000	80.22000	78.86000	79.32000		
	73.10400	78.73900					79.40538	3.779
17 2-Nitrotoluene	24.50000	25.30000	23.52500	24.39000	24.32500	24.51250		
	22.18600	24.28200					24.12756	3.813
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++ <-
19 3-Nitrotoluene	35.00000	32.50000	30.55000	31.42000	30.76000	31.17500		
	28.82000	30.96400					31.39862	5.672
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	46.40000	40.85000	39.74000	38.04000	38.34500		
	35.87333	38.62800					39.65376	8.405

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\C-
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d\C-
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\C-
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d\C-
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d\C-
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d\C-
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d\C-

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD	
2 HMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 RDX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 EGDN	+++++	39.00000	42.36000	44.25000	44.94000	40.36600	42.86600	42.29700	5.363	
5 Picric ACID	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 3,5-Dinitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 TETRYL	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
10 Nitrobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****
11 Nitroglycerin	*****	55.25000	55.16000	56.31000	57.02000	56.37800	57.36100	56.23650	1.571
12 2,4,6-Trinitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
13 4-AM-2,6-DNT	*****	*****	*****	*****	*****	*****	*****	*****	*****
14 2-AM-4,6-DNT	*****	*****	*****	*****	*****	*****	*****	*****	*****
15 2,6-Dinitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
16 2,4-Dinitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
17 2-Nitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
18 4-Nitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
19 3-Nitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
20 PETN	*****	104	101	102	104	104	105	103	1.208

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD	
	1000.000 Level 8								
$ 1 3,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-

TestAmerica West Sacramento

C-000013.D

Chromatography Summary

Injection Date: 6/10/2009 6:29 Operator: fhk

DataFile: LC9 I\06092009.B\C-000013.D Vial Num: 20

Instrument ID: LC9

Method 8330 Target Analyte Results

Sample: ICV_6 08GCSV0397 200/500/200/200/200

Method File: LC9 I\06092009 B\8330CNAB M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
IX	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 200/500/200/200/200;2

Misc. Info: ; 6, , , : 3: CAL.sub, ; 0. 1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	31.18	259	6.5320<	200	-97%	Fails					200	-100%	Fails		(±15)	45
HMX	35.11	8323	202.0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25.60	8556	201.0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21.78	13318	198.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19.50	17403	197.6000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	40.80	16134	185.4000<	200	-7%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16.81	7967	201.2000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32.92	14562	180.0000<	200	-10%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29.55	12516	187.0000<	200	-7%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	29.21	14216	191.4000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	27.26	9755	194.9000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	26.42	15486	195.0000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22.83	9684	401.4000<	400	0%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	23.35	6108	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38.67	11785	209.6000<	200	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		49.13	19084	184.7000<	200	-8%	Acceptable		(±15)	45
3,5-Dinitroaniline	25.06	13705	204.2000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails		18.01	9041	213.8000<	200	7%	Acceptable		(±15)	45

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 6/10/2009 10:43 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 07102009A
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Dil'n	Comments
10-JUL-2009	17:28	fhk	Primer	C-000C01.	0 g	0 mL	1	
10-JUL-2009	18:30	fhk	Primer	C-000C02.	0 g	0 mL	1	
10-JUL-2009	19:32	fhk	STD_5 09GCSV0238 .2K/ 1/.1/.1/	C-000C03.	0 g	0 mL	1	
10-JUL-2009	20:34	fhk	LF1EN1AA 9183251 G9G020000-251	C-000C04.	1000 mL	20 mL	1	
10-JUL-2009	21:36	fhk	LFXXW1AC 9183251 G9G010225-1 1	C-000005.	1021.57 mL	20 mL	1	
10-JUL-2009	22:39	fhk	LFX111AC 9183251 G9G010225-3 1	C-000006.	1024.15 mL	20 mL	1	
10-JUL-2009	23:41	fhk	LFX121AC 9183251 G9G010225-4 1	C-000007.	1019.2 mL	20 mL	1	
11-JUL-2009	00:43	fhk	LFX151AC 9183251 G9G010225-5 1	C-000008.	1021.92 mL	20 mL	1	See R.P.
11-JUL-2009	01:45	fhk	LF7A31AA 9189394 G9G080000-394	C-000009.	10 g	80 mL	1	
11-JUL-2009	02:48	fhk	LFX4Q1AA 9189394 G9G010246-1 1	C-000010.	10.01 g	80 mL	1	
11-JUL-2009	03:50	fhk	LFX4R1AA 9189394 G9G010246-2 1	C-000011.	9.06 g	80 mL	1	
11-JUL-2009	04:52	fhk	LFX4T1AA 9189394 G9G010246-3 1	C-000012.	10.01 g	80 mL	1	
11-JUL-2009	05:54	fhk	STD_6 09GCSV0054 .5K/.2/.2/.2/	C-000013	0 g	0 mL	1	
11-JUL-2009	06:57	fhk	LF3161AA 9187206 G9G060000-206	C-000014.	1000 mL	20 mL	1	
11-JUL-2009	07:59	fhk	LF3H41AC 9187206 G9G030156-1 1	C-000015	1000 mL	20 mL	1	
11-JUL-2009	09:01	fhk	LF3HS1AC 9187206 G9G030156-2 1	C-000016.	1000 mL	20 mL	1	
11-JUL-2009	10:03	fhk	LF3H61AC 9187206 G9G030156-3 5	C-000017.	1000 mL	20 mL	5	
11-JUL-2009	11:06	fhk	LF5WA1AA 9188431 G9G070000-431	C-000018.	2 g	40 mL	1	
11-JUL-2009	12:08	fhk	LFXP31AA 9188431 A9G010193-1 1	C-000019.	2 g	40 mL	1	
11-JUL-2009	13:10	fhk	LFXQQ1AA 9188431 A9G010193-2 1	C-000020.	2.02 g	40 mL	1	
11-JUL-2009	14:12	fhk	LFW791AAB 9182192 MB 1X	C-000021.	1000 mL	20 mL	1	
11-JUL-2009	15:14	fhk	LFV9M1AC 9182192 G9F300242-5 1	C-000022.	1016.72 mL	20 mL	1	
11-JUL-2009	16:16	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	C-000023.	0 g	0 mL	1	

LFXXL6 – not confirmed?

TestAmerica West Sacramento

C-000003.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/10/2009 19:32 Operator: flk
DataFile: LC9 I\07102009A B\C-000003 D Vial Num: 2
Instrument ID: LC9

Sample : **STD_5 09GCSV0238 .2K/.1/.1/.1/.1**

Method File: LC9 I\07102009A B\S330CNAB M
Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4.20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:
Samp. Info: STD_5 09GCSV0238 2K/ 1/ 1/ 1/ 1;2
Misc. Info: ; 5. ; , , 3; CAL sub, , 0, 1. 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30 47	4394	110.8000<	100	11%	Acceptable					100	-100%	Fails		(±15)	45
HMX	34.51	3416	82.8900<	100	-17%	Fails					100	-100%	Fails		(±15)	45
RDX	24 91	4222	99 2000<	100	-1%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID				200	-100%	Fails					200	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21.35	6799	101 5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	18 92	8855	100.6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	40 33	8883	102 1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	16 20	4158	105 0000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32 45	7793	96 3300<	100	-4%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	28 82	6879	102.8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28 50	7694	103.6000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26 55	5096	101.8000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	25.74	8053	101.4000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	22 07	5149	213 4000<	200	7%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
3-Nitrotoluene	22.60	3149	100.3000<	100	0%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		38 17	5661	100.7000<	100	1%	Acceptable		(±15)	45
PETN				100	-100%	Fails		48 81	10839	104 9000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	24 39	6825	101 7000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails		17.61	4413	104 3000	100	4%	Acceptable		(±15)	45

low – Not Marked

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 7/11/2009 11:00 AM

TestAmerica West Sacramento

C-000013.D

Chromatography Summary

Injection Date: 7/11/2009 5 54 Operator: fnk

DataFile: LC9 I\07102009A B\C-000013 D Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID: LC9

Sample : STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Method File: LC9 I\07102009A.B\8330CNAB M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4 20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_6 09GCSV0054 5K/ 2/.2/.2/ 2;2

Misc. Info: , 6; : ; , 3, CAL sub; ; 0; 1, 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30.69	8487	214.0000<	200	7%	Acceptable					200	-100%	Fails		(±15)	45
HMX	34.67	7594	184.3000<	200	-8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25 16	8673	203.8000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21 54	13992	208 9000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19 18	18240	207 1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	40 38	18246	209 7000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16 47	8291	209.4000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32.59	16243	200 8000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29.08	13363	199 6000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28.74	14987	201.7000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26.81	10167	203 1000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	25 99	16528	208.1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22 38	10164	421.3000<	400	5%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	22 90	6323	201 4000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38.25	11803	209 9000<	200	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		48 78	21503	208 1000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	24.65	13757	205 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails		17.80	9381	221.8000	200	11%	Acceptable		(±15)	45

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:30 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 07142009A
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
14-JUL-2009	13:57	fhk	Primer	C-000001.	0 g	0 mL	1	
14-JUL-2009	15:00	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	C-000002.	0 g	0 mL	1	
14-JUL-2009	16:02	fhk	LFX151AC 9183251 G9G010225-5 1	C-000003	~~1000 mL~~ 1021.92	20 mL	1	1021.92
14-JUL-2009	17:04	fhk	STD_6 09GCSV0054 .5K/.2/.2/.2/	C-000004.	0 g	0 mL	1	

JMN 7/15/09

TestAmerica West Sacramento

C-000002.D

Chromatography Summary

Injection Date: 7/14/2009 15:00 Operator: flk

DataFile: LC9 B\07142009A B\C-000002 D Vial Num: 2

Method 8330 Target Analyte Results

Instrument ID: LC9

Sample: STD_5 09GCSV0238 .2K/.1/.1/.1/.1

Method File: LC9 B\07142009A B\8330CNAB M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4.20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_5 09GCSV0238 .2K/ 1/ 1/ 1/.1,2

Misc. Info: ; 5; ; , : 3, CAL.sub; ; 0; 1; 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	31.08	4056	102.3000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
HMX	35 02	4112	99.7800<	100	0%	Acceptable					100	-100%	Fails		(±15)	45
RDX	25 52	4319	101 5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID				200	-100%	Fails					200	-100%	Fails		(±15)	
1,3,5 Trinitrobenzene	21 79	6774	101 1000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19.46	8818	100.1000<	100	0%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	40.68	9087	104.4000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	16 75	4130	104 3000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32 85	7977	98.6100<	100	-1%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29 46	6865	102.5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	29.11	7562	101 8000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	27.17	5110	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	26 34	8075	101.7000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	22 75	5063	209 8000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
3-Nitrotoluene	23 27	3193	101.7000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		38 56	5792	103 0000<	100	3%	Acceptable		(±15)	45
PETN				100	-100%	Fails		49 00	10860	105.1000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	25 01	6927	103 2000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails		18 00	4612	109.0000	100	9%	Acceptable		(±15)	45

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

C-000004.D

Chromatography Summary

Injection Date: 7/14/2009 17:04 Operator: fhk

DataFile: LC9 I\07142009A B\C-000004 D Vial Num: 3

Instrument ID: LC9

Method 8330 Target Analyte Results

Sample : **STD_6 09GCSV0054 .5K/.2/.2/.2/.2**

Method File: LC9.I\07142009A B\8330CNAB M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Misc. Info: , 6, , ; ; 3, CAL sub: ; 0; 1; 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	31.17	8088	204.0000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
HMX	35.10	8294	201.3000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25.64	8841	207.7000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21.85	13960	208.4000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19.56	18224	207.0000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	40.73	18387	211.3000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16.87	8317	210.0000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32.91	15780	195.1000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29.58	13774	205.7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	29.23	15080	203.0000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	27.29	10345	206.7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	26.45	16604	209.1000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22.87	10117	419.3000<	400	5%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	23.38	6428	204.7000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38.61	12038	214.1000<	200	7%	Acceptable		(±15)	45
PETN				200	-100%	Fails		48.99	21884	211.8000<	200	6%	Acceptable		(±15)	45
3,5-Dinitroaniline	25.12	13891	207.0000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails		18.07	9241	218.5000	200	9%	Acceptable		(±15)	45

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/14/2009 7:14 PM

2324MW01AW

TestAmerica West Sacramento

A-000006.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/8/2009 20 22 Operator: fhk

DataFile: LC10 I\07082009 B\A-000006.D Vial Num: 13

Instrument ID: LC10

Sample : **LFXXW1AC 9183251 G9G010225-1 1X**

Method File: LC10 I\07082009.B\S330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1021.57 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:

Samp. Info: LFXXW1AC 9183251 G9G010225-1 1X;0;

Misc. Info: :.1021 57;;20;1;WATER sub,;0,1;LFXXW1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.032	5380	2.2330<		18.24	0.029	10484	2.3740		0.0000	0.00	
HMX											0 0264	0 10	
RDX	7.88	0.022	524	0.1317<							0.0636	0.10	45
Picric ACID											0.1224	0.98	
1,3,5-Trinitrobenzene	10 12	-0 038	247	0 0328<							0 0303	0.10	45
1,3-Dinitrobenzene											0 0489	0 10	
TETRYL											0.0489	0 10	
Nitrobenzene											0 0489	0 10	
2,4,6-Trinitrotoluene											0.0235	0 10	
4-AM-2,6-DNT											0.0215	0 10	
2-AM-4,6-DNT											0 0979	0 20	
2,6-Dinitrotoluene											0 0489	0.10	
2,4-Dinitrotoluene											0 0489	0 10	
2-Nitrotoluene											0 0705	0.49	
4-Nitrotoluene											0 0705	0 49	
3-Nitrotoluene											0.0607	0 49	
Nitroglycerin											0 3230	0 64	
PETN											0 2937	0.64	
3,5-Dinitroaniline											0 0245	0.98	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4472	2.2330	91	2.4472	2.3740	97	(79-111)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

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TestAmerica West Sacramento

C-000005.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/10/2009 21:36 Operator: fhk

DataFile: LC9 B\07102009A B\C-000005 D Vial Num: 12

Instrument ID: LC9

Sample: **LFXXW1AC 9183251 G9G010225-1 1X**

Method File: LC9:\B\07102009A B\8330CNAB.M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4.20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1021.57 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:

Samp. Info: LFXXW1AC 9183251 G9G010225-1 1X;0;

Misc. Info: .;1021.57;;20;1;WATER.sub;;0;1.LFXXW1AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.52	-0.138	4974	2.4560<							0.0000	0.00	45
HMX											0.0264	0 10	
RDX	24.99	-0.140	269	0.1237<	Confirmed JMH 7/14/09						0.0636	0.10	45
Picric ACID											0 1224	0.96	
1,3,5-Trinitrobenzene											0 0303	0 10	
1,3-Dinitrobenzene											0.0489	0 10	
TETRYL											0 0489	0 10	
Nitrobenzene											0.0489	0 10	
2,4,6 Trinitrotoluene											0 0235	0.10	
4-AM-2,6-DNT											0 0215	0 10	
2-AM-4,6-DNT											0 0979	0 19	
2,6-Dinitrotoluene											0.0489	0 10	
2,4-Dinitrotoluene											0 0489	0.10	
2-Nitrotoluene											0 0705	0 48	
4-Nitrotoluene											0.0705	0.48	
3-Nitrotoluene											0 0607	0.48	
Nitroglycerin											0.3230	0 62	
PETN											0 2937	0 62	
3,5-Dinitroaniline											0.0245	0 96	

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4472	2.4560	100		2.4472		0	(48 143)

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

2324MW01BW

A-000007.D

TestAmerica West Sacramento

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/8/2009 21:12 Operator: fhk

DataFile: LC10 I\07082009 B\A-000007 D Vial Num: 14

Instrument ID: LC10

Sample : **LFXX61AC 9183251 G9G010225-2 1X**

Method File: LC10 I\07082009 B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1022.4 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:

Samp. Info: LFXX61AC 9183251 G9G010225-2 1X.0,

Misc. Info: .;1022.4,;20.1;WATER sub.,0.1;LFXX61AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.22	0.008	5488	2.2760<		18.22	0.008	10601	2.3990		0.0000	0.00	
HMX											0.0264	0.10	
RDX											0.0636	0.10	
Picric ACID											0.1223	0.98	
1,3,5-Trinitrobenzene	10.11	-0.089	252	0.033<<							0.0303	0.10	45
1,3-Dinitrobenzene											0.0489	0.10	
TETRYL											0.0489	0.10	
Nitrobenzene											0.0489	0.10	
2,4,6-Trinitrotoluene											0.0235	0.10	
4-AM-2,6-DNT											0.0215	0.10	
2-AM-4,6-DNT											0.0978	0.20	
2,6-Dinitrotoluene											0.0489	0.10	
2,4-Dinitrotoluene											0.0489	0.10	
2-Nitrotoluene											0.0704	0.49	
4-Nitrotoluene											0.0704	0.49	
3-Nitrotoluene											0.0606	0.49	
Nitroglycerin											0.3228	0.64	
PETN											0.2934	0.64	
3,5-Dinitroaniline											0.0245	0.98	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4452	2.2760	93	2.4452	2.3990	98	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

not confirmed

Printed: 7/14/2009 1:02 PM

23LHMW460W

TestAmerica West Sacramento

A-000008.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/8/2009 22 03 Operator: fhk

DataFile: I:\C10\07082009\B\A-000008.D Vial Num: 15

Instrument ID: I.C10

Sample : **LFX111AC 9183251 G9G010225-3 1X**

Method File: I:\C10\07082009\B\8330AB.M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1024.15 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFX111AC 9183251 G9G010225-3 1X:0;

Misc. Info: ..1024 15:,20,1,WATER sub,,0,1,LFX111AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.22	0.013	5492	2.2740<		18.23	0.017	10608	2.3960		0.0000	0.00	
HMX	5.30	0 007	178	0 0288<							0 0264	0 10	45
RDX	7.87	0.013	16452	4.1250<							0.0635	0.10	45
Picric ACID											0 1221	0.98	
1,3,5-Trinitrobenzene	10.36	0.160	1266	0.1675<							0.0303	0.10	45
1,3-Dinitrobenzene											0 0488	0 10	
TETRYL											0 0488	0.10	
Nitrobenzene											0.0488	0 10	
2,4,6-Trinitrotoluene											0 0234	0 10	
4-AM-2,6-DNT											0.0215	0 10	
2-AM-4,6-DNT											0 0976	0 20	
2,6 Dinitrotoluene											0.0488	0 10	
2,4 Dinitrotoluene											0 0488	0.10	
2-Nitrotoluene											0 0703	0.49	
4-Nitrotoluene											0.0703	0 49	
3-Nitrotoluene											0 0605	0.49	
Nitroglycerin											0 3222	0 63	
PETN											0 2929	0 63	
3,5-Dinitroaniline											0 0244	0 98	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4410	2.2740	93	2.4410	2.3960	98	(79-111)

- continued on CV

- No continued on CV MB

7/14/09

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

C-000006.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/10/2009 22:39 Operator: fhk

DataFile: LC9 I\07102009A B\C-000006 D Vial Num: 13

Instrument ID: LC9

Sample : **LFX111AC 9183251 G9G010225-3 1X**

Method File: LC9 I\07102009A B\8330CNAB.M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1024.15 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFX111AC 9183251 G9G010225-3 1X;0;

Misc. Info: ;;1024 15,,20;1,WATER sub,;0;1;LFX111AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.74	0.087	4980	2.4520<							0.0000	0.00	45
HMX	34.72	0 068	89	0 0422<							0 0264	0 10	45
RDX	25.26	0.125	8280	3.7990<	– confirmed						0.0635	0.10	45
Picric ACID											0 1221	0 95	
1,3,5-Trinitrobenzene	– Not confirmed MD										0 0303	0.10	
1,3-Dinitrobenzene											0 0488	0 10	
TETRYL											0.0488	0 10	
Nitrobenzene											0 0488	0 10	
2,4,6-Trinitrotoluene											0 0234	0 10	
4-AM-2,6-DNT											0 0215	0.10	
2-AM-4,6-DNT											0 0976	0 19	
2,6-Dinitrotoluene											0.0488	0 10	
2,4-Dinitrotoluene											0 0488	0 10	
2-Nitrotoluene											0 0703	0.48	
4-Nitrotoluene											0 0703	0 48	
3-Nitrotoluene											0 0605	0 48	
Nitroglycerin											0.3222	0 62	
PETN											0.2929	0 62	
3,5-Dinitroaniline											0 0244	0 95	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4410	2.4520	100	2.4410		0	(48-143)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

7/14/09

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2324 MWO 3BW

TestAmerica West Sacramento

A-000009.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/8/2009 22 53 Operator: fhk

DataFile: LC10 I\07082009 B\A-000009 D Vial Num: 16

Instrument ID: LC10

Sample : **LFX121AC 9183251 G9G010225-4 1X**

Method File: LC10 I\07082009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1019.2 mL	0 g

Matrix: WATER SubList: WATER.sub SpikeList:

Samp. Info: LFX121AC 9183251 G9G010225-4 1X,0,

Misc. Info: ;.1019 2,;20,1,WATER sub,,0 1;LFX121AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.030	5457	2.2700 <		18.24	0.033	10513	2.3860		0.0000	0.00	
HMX	5.30	0 006	169	0 0275 <							0.0265	0 10	45
RDX	7.87	0.020	16232	4.0890 <							0.0638	0.10	45
Picric ACID											0 1226	0 98	
1,3,5-Trinitrobenzene	10.39	0.183	1769	0.2352 <							0.0304	0.10	45
1,3-Dinitrobenzene											0 0491	0 10	
TETRYL											0 0491	0.10	
Nitrobenzene											0 0491	0 10	
2,4,6-Trinitrotoluene											0 0235	0 10	
4-AM-2,6-DNT											0.0216	0 10	
2-AM-4,6-DNT											0 0981	0 20	
2,6-Dinitrotoluene											0.0491	0 10	
2,4-Dinitrotoluene											0 0491	0 10	
2-Nitrotoluene											0.0706	0 49	
4-Nitrotoluene											0.0706	0 49	
3-Nitrotoluene											0 0608	0.49	
Nitroglycerin											0 3238	0 64	
PETN											0 2943	0.64	
3,5-Dinitroaniline											0.0245	0.98	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4529	2.2700	93	2.4529	2.3860	97	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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TestAmerica West Sacramento

C-000007.D

Chromatography Summary

Injection Date: 7/10/2009 23:41 Operator: fhk

DataFile: LC9 I\07102009A B\C-000007 D Vial Num: 14

Method 8330 Target Analyte Results

Instrument ID: LC9

Sample : **LFX121AC 9183251 G9G010225-4 1X**

Method File: LC9 I\07102009A B\8330CNAB.M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:30

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1019.2 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFX121AC 9183251 G9G010225-4 1X,0,

Misc. Info: ,;1019.2,,20;1;WATER.sub;;0;1;LFX121AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.40	-0.259	5098	2.5230<	M						0.0000	0.00	45
HMX											0.0265	0.10	
RDX	24.85	-0.286	8046	3.7100<	M						0.0638	0.10	45
Picric ACID											0.1226	0.96	
1,3,5-Trinitrobenzene											0.0304	0.10	
1,3-Dinitrobenzene	18.86	-0.292	1390	0.3098<	M						0.0491	0.10	45
TETRYL											0.0491	0.10	
Nitrobenzene											0.0491	0.10	
2,4,6-Trinitrotoluene											0.0235	0.10	
4-AM-2,6-DNT	28.72	-0.320	96	0.0281<	M						0.0216	0.10	45
2-AM-4,6-DNT											0.0981	0.19	
2,6-Dinitrotoluene											0.0491	0.10	
2,4-Dinitrotoluene											0.0491	0.10	
2-Nitrotoluene											0.0706	0.48	
4-Nitrotoluene											0.0706	0.48	
3-Nitrotoluene											0.0608	0.48	
Nitroglycerin											0.3238	0.63	
PETN											0.2943	0.63	
3,5-Dinitroaniline											0.0245	0.96	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4529	2.5230	103	2.4529		0	(48-143)

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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2324MW038AW

TestAmerica West Sacramento

A-000010.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/8/2009 23:44 Operator: fhk

DataFile: I:\C10\070S2009.B\A-000010.D Vial Num: 17

Instrument ID: I.C10

Sample : **LFX151AC 9183251 G9G010225-5 1X**

Method File: I:\C10\070S2009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1021.92 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LFX151AC 9183251 G9G010225-5 1X,0,

Misc. Info: .;1021.92,;20;1.WATER sub,.0,1,LFX151AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	0.021	5597	2.3220<		18.24	0.025	10764	2.4370		0.0000	0.00	
HMX	5.30	0.005	2345	0.3798<							0.0264	0.10	45
RDX	7.87	0.018	37290	9.3690<							0.0636	0.10	45
Picric ACID											0.1223	0.98	
1,3,5-Trinitrobenzene	10.38	0.171	1655	0.2194<							0.0303	0.10	45
1,3-Dinitrobenzene											0.0489	0.10	
TETRYL											0.0489	0.10	
Nitrobenzene											0.0489	0.10	
2,4,6-Trinitrotoluene											0.0235	0.10	
4-AM-2,6-DNT											0.0215	0.10	
2-AM-4,6-DNT											0.0979	0.20	
2,6-Dinitrotoluene											0.0489	0.10	
2,4-Dinitrotoluene											0.0489	0.10	
2-Nitrotoluene											0.0705	0.49	
4-Nitrotoluene											0.0705	0.49	
3-Nitrotoluene											0.0607	0.49	
Nitroglycerin											0.3229	0.64	
PETN											0.2936	0.64	
3,5-Dinitroaniline											0.0245	0.98	

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4464	2.3220	95		2.4464	2.4370	100	(79-111)

Notes: M = Manually Integrated Signals Differ by More Than 40%

D = Operator Disabled Result Signals Differ by More Than 50%

O = Over Calibration Range

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TestAmerica West Sacramento

C-000003.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/14/2009 16:02 Operator: fhk
DataFile: LC9 I\07142009A B\C-000003.D Vial Num: 11
Instrument ID: LC9

Sample : **LFX151AC 9183251 G9G010225-5 1X**

Method File: LC9.I\07142009A B\8330CNAB.M
Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4 20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1021.92 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:
Samp. Info: LFX151AC 9183251 G9G010225-5 1X;0;
Misc. Info: ..1021 92;;20;1;WATER.sub;;0;1;LFX151AC

	Zorbax Cyano(250nm)					Zorbax Cyano(250nm-205nm)							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	31.20	0.030	4881	2.4090<							0.0000	0.00	45
HMX	35.09	-0.006	823	0.3908<	) Confirmed						0.0264	0.10	45
RDX	25.67	0.032	18997	8.7360<							0.0636	0.10	45
Picric ACID											0 1223	0.96	
1,3,5-Trinitrobenzene	- not confirmed										0 0303	0.10	
1,3-Dinitrobenzene											0 0489	0.10	
TETRYL					JMN 7/15/09						0.0489	0.10	
Nitrobenzene											0 0489	0.10	
2,4,6-Trinitrotoluene											0 0235	0 10	
4-AM-2,6-DNT	29.66	0 075	84	0 0246<							0.0215	0.10	45
2 AM-4,6-DNT											0 0979	0 19	
2,6-Dinitrotoluene											0 0489	0 10	
2,4-Dinitrotoluene											0.0489	0.10	
2-Nitrotoluene											0.0705	0.48	
4-Nitrotoluene											0.0705	0.48	
3-Nitrotoluene											0 0607	0.48	
Nitroglycerin											0 3229	0.62	
PETN											0.2936	0.62	
3,5-Dinitroaniline											0 0245	0.96	

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4464	2.4090	98		2.4464		0	(48-143)

Notes
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Data Validation Report

Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0979

ECT.CON INC.

Environmental and Computer
Technology Consultants

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Data Validation Report

SDG#	PSF0979
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Date Sampled	Location	Portland ID	Sacramento ID	Explosives	Matrix
06/29/09	23L4MW04AW	PSF0979-01	LF3H4	X	Aqueous
06/29/09	23L4MW02AW	PSF0979-02	LF3H5	X	Aqueous
06/29/09	23L4MW02BW	PSF0979-03	LF3H6	X	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

SUMMARY

The sample set for the Camp Bonneville site consists of three aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

* • Data Completeness
* • Holding Times
* • Calibration (Initial and Continuing)
* • Blanks
* • System Monitoring Compounds (Surrogate Spikes)
* • Matrix Spike/Matrix Spike Duplicates
• Laboratory Control Standard Results
* • Target Compound Identification
• Compound Quantification and Reported Contract Quantitation Limits
* • System Performance

* Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

FINDINGS

1. Laboratory Control Sample Results

Recovery of HMX (116%) and RDX (124%) exceeded the laboratory's upper quality control limits. In the following samples, positive results for HMX and RDX were qualified as estimated "J".

23L4MW04AW 23L4MW02AW 23L4MW02BW

2. Compound Quantitiation

Positive results less than the reporting limit were qualified as estimated "J" due to the level of uncertainty.

NOTES

Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

Laboratory Control Sample Results

Recovery of several compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

Compound Quantitation

Sample 23L4MW02BW was analyzed and reported at a 5X dilution factor due to the presence of RDX above the linear calibration range of the instrument. This accounts for the elevated reporting limits for this sample. Data were not qualified on this basis.

Field Duplicate Results

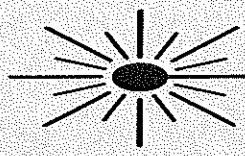
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer

8/17/09
Date

Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



ECT.CON INC.

Environmental and Computer
Technology Consultants

Annotated Form 1's
(Spreadsheet)

TestAmerica Portland

Client Sample ID: PSF0979-01

HPLC 234MW04AW

Lot-Sample #...: G9G030156-001 Work Order #...: LF3H41AC Matrix.....: WATER
Date Sampled...: 06/29/09 Date Received..: 07/02/09
Prep Date.....: 07/06/09 Analysis Date..: 07/09/09
Prep Batch #...: 9187206 0306
Dilution Factor: 0.99 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.99	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.099
4-Amino-2,6-dinitrotoluene	ND	0.099	ug/L	0.022
1,3-Dinitrobenzene	ND	0.099	ug/L	0.050
2,4-Dinitrotoluene	ND	0.099	ug/L	0.050
2,6-Dinitrotoluene	ND	0.099	ug/L	0.050
HMX	ND	0.099	ug/L	0.027
Nitrobenzene	ND	0.099	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.071
3-Nitrotoluene	ND	0.40	ug/L	0.061
4-Nitrotoluene	ND	0.50	ug/L	0.071
RDX	**2.8** J	**0.099**	**ug/L**	**0.064**
Tetryl	ND	0.099	ug/L	0.050
1,3,5-Trinitrobenzene	ND	0.099	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.099	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	99	(79 - 111)

UK 9/16/09

TestAmerica Portland

Client Sample ID: PSF0979-02

HPLC 234MW02AW

Lot-Sample #...: G9G030156-002 Work Order #...: LF3H51AC Matrix.....: WATER
Date Sampled...: 06/29/09 Date Received..: 07/02/09
Prep Date.....: 07/06/09 Analysis Date..: 07/09/09 0357
Prep Batch #...: 9187206
Dilution Factor: 1 Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	0.10
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	3.8 J	**0.10**	**ug/L**	**0.027**
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	19 J	**0.10**	**ug/L**	**0.065**
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	ND	0.10	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	102	(79 - 111)

LWK 8/6/09

TestAmerica Portland

Client Sample ID: PSF0979-03

HPLC 23L4MW028W

Lot-Sample #...: G9G030156-003 Work Order #...: LF3H61AC Matrix.....: WATER
Date Sampled...: 06/29/09 Date Received..: 07/02/09
Prep Date.....: 07/06/09 Analysis Date..: 07/11/09 0611
Prep Batch #...: 9187206
Dilution Factor: 5 Method.....: SW846 8330

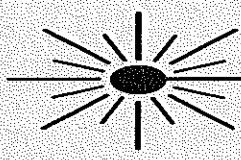
PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Nitroglycerin	ND	3.2	ug/L	0.75
PETN	ND	3.2	ug/L	1.2
Picric Acid	ND	5.0	ug/L	0.62
2-Amino-4,6-dinitrotoluene	ND	1.0	ug/L	0.50
4-Amino-2,6-dinitrotoluene	ND	0.50	ug/L	0.11
1,3-Dinitrobenzene	ND	0.50	ug/L	0.25
2,4-Dinitrotoluene	**0.36 J**	**0.50**	**ug/L**	**0.25**
2,6-Dinitrotoluene	ND	0.50	ug/L	0.25
HMX	**4.3 J**	**0.50**	**ug/L**	**0.14**
Nitrobenzene	ND	0.50	ug/L	0.25
2-Nitrotoluene	ND	2.0	ug/L	0.36
3-Nitrotoluene	ND	2.0	ug/L	0.31
4-Nitrotoluene	ND	2.5	ug/L	0.36
RDX	**84 J**	**0.50**	**ug/L**	**0.32**
Tetryl	ND	0.50	ug/L	0.25
1,3,5-Trinitrobenzene	ND	0.50	ug/L	0.16
2,4,6-Trinitrotoluene	ND	0.50	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	102	(79 - 111)

NOTE(S):

J Estimated result. Result is less than RL.

LDF 8/14/09



ECT.CON INC.

Environmental and Computer
Technology Consultants

Support Documentation

Laboratory Case Narrative

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc.
James D. Peyton
5261 Fountain Drive, Suite A
Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater
Client Project Number: 110002 Task 6200

TA Work Order#: PSF0979

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

147

July 31, 2009

TestAmerica - Portland
9405 S. W. Nimbus Avenue
Beaverton, Oregon 97008
(503) 906-9200
(503) 906-9210

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Michael Baker Jr., Inc.	**Date Sampled:**	6/29/2009
Project:	Camp Bonneville Groundwater 110002 Task 6200	**Date Received:**	6/30/2009
Lab:	PSF0979		

SAMPLE RECEIPT: Samples were received intact, on ice, with chain of custody documentation. The sample temperature was measured at 2.3° C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered.

QA/QC CRITERIA: No problems were encountered during sample analysis.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: 314.0_9196314 (Perchlorate) and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben

Estella Rieben
Project Manager

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 (503) 906-9210

TestAmerica
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Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23L4MW04AW	PSF0979-01	Water	06/29/09 16:30	06/30/09 17:10
23L4MW02AW	PSF0979-02	Water	06/29/09 18:00	06/30/09 17:10
23L4MW02BW	PSF0979-03	Water	06/29/09 21:00	06/30/09 17:10
TB-261	PSF0979-04	Water	06/29/09 00:00	06/30/09 17:10

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:55

Notes and Definitions

Report Specific Notes:

a - Spiked analyte recovery is outside stated control limits.

J - Estimated result. Result is less than RL.

Q - Elevated Reporting limit. The reporting limit is elevated due to high analyte levels.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

Case Narrative

TestAmerica West Sacramento Project Number G9G030156

WATER, 8330, Nitroaromatics & Nitramines
Samples: 1, 2, 3
The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for some analytes above the established control limits indicating a potential high bias in the data. There is no adverse impact upon the data for the analytes that are not detected at concentrations above the reporting limit in the samples. The samples do have detected concentrations of RDX and HMX but this was not discovered until after the recommended hold time for extraction had expired. After consulting with Ms. Rieben, the samples were not re-extracted and the analytical results are included in this report.

There was insufficient sample volume to prepare a matrix spike/matrix spike duplicate (MS/MSD) pair with this extraction batch.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G9G030156

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LF3H4	1	PSF0979-01 23L4MW04AW	6/29/2009 04:30 PM	7/2/2009 09:50 AM
LF3H5	2	PSF0979-02 23L4MW02AW	6/29/2009 06:00 PM	7/2/2009 09:50 AM
LF3H6	3	PSF0979-03 23L4MW02BW	6/29/2009 09:00 PM	7/2/2009 09:50 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

G9G030156

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9187206	
002	WATER	SW846 8330		9187206	
003	WATER	SW846 8330		9187206	

Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7132 503-906-9200 FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #: PSF0979

CLIENT: MICHAEL BAKER JR INC

REPORT TO: MARGARET JAMES
ADDRESS: 5261 FOUNTAIN DRIVE SUITE A
CROWN POINT IN 46307
PHONE: 2197360063 FAX 2197550233

INVOICE TO: BAKER
← SAME ADDRESS

P.O. NUMBER 110002 T6200

PROJECT NAME: CAMP BONNEVILLE
PROJECT NUMBER: 110002 T6200
SAMPLED BY: WILLIAM PECKEY

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 STD | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify
* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE: HCL	N/A	N/A	REQUESTED ANALYSES: VOC 8260B	EXPLOSIVES 8330	PERCHLORATES 314.1	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 23L4MW04AW	6-29-09 / 16:30				X	X	X	W	6	NO TICS	
2 23L4MW02AW	6-29-09 / 18:00				X	X	X	W	6	NO TICS	
3 23L4MW02BW	6-29-09 / 21:00				X	X	X	W	6	NO TICS	
4 TB-261	6-29-2009				X			W	1	NO TICS	
5											
6											
7											
8											
9											
10											

RELEASED BY: WILLIAM PECKEY
PRINT NAME: William Peckey FIRM: BAKER
DATE: 6/30/09 TIME: 09:30
RECEIVED BY: Bob F
PRINT NAME: Bob F FIRM: TAP
DATE: 6/30/09 TIME: 15:30

RELEASED BY: ~~WILLIAM PECKEY~~ WP Bob F
PRINT NAME: ~~WILLIAM PECKEY~~ Bob F FIRM: TAP
DATE: 6/30/09 TIME: 17:10
RECEIVED BY: Marianne Eller
PRINT NAME: Marianne Eller FIRM: TAP
DATE: 6/30/09 TIME: 1710

ADDITIONAL REMARKS:

TEMP: 2.3°C PAGE: OF:

TAL-1000(0408)

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0979 Date/Time Received: 6/30/09 1710

Client Name and Project: Michael Baker

Time Zone:

☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): _____ _____ _____ _____ _____

Temperatures: _____ _____ _____ _____ _____

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice

__Ice Melted

__W/in 4 Hrs of collection

__Other: _____

Initials: BLE

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD.
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Proper Container and preservatives used? If no, document on NOD.
☒	☐	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	9. HF Dilution required?
	☒	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☒	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☒	☐	12. Is the "Sampled by" section of the COC completed?
☐	☒	☐	13. Were VOA/Oil Syringe samples without headspace?
☐	☒	☐	14. Were VOA vials preserved? ☒HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☒	15. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☒	☐	☐	19. Are analyses with short holding times received in hold?
	☒	☐	20. Was Standard Turn Around (TAT) requested?
	☒	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PSF0979

Login Checks:

Initials: PS

N/A	Yes	No	
	☒	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☒	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☒	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☒	☐	☐	25. Were special log in instructions read and followed?
	☒	☐	26. Were tests logged checked against the COC?
☒	☐	☐	27. Were rush notices printed and delivered?
☒	☐	☐	28. Were short hold notices printed and delivered?
☐	☒	☐	29. Were subcontract COCs printed?
☒	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: BM

N/A	Yes	No	
☐	☒	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☒	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☒	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☒	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☒	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☒	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

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LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT HAL - Portland PM LL LOG # 59325

LOT# (QUANTIMS ID) G9G030156 QUOTE# 59325 LOCATION W25C

		Initials	Date
DATE RECEIVED 7-2-09	TIME RECEIVED 950	AK	7-2-09

DELIVERED BY
- ☑ FEDEX
- ☐ CA OVERNIGHT
- ☐ CLIENT
- ☐ AIRBORNE
- ☐ GOLDENSTATE
- ☐ DHL
- ☐ UPS
- ☐ BAX GLOBAL
- ☐ GO-GETTERS
- ☐ TAL COURIER
- ☐ VALLEY LOGISTICS
- ☐ MORGAN HILL COURIER
- ☐ OTHER

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A

CUSTODY SEAL #(S) 2044635, 2044625

SHIPPPING CONTAINER(S) ☐ TAL ☑ CLIENT ☐ N/A

TEMPERTURE RECORD (IN °C) IR 4 ☐ 5 ☑ ☐ OTHER

COC #(S) NA

TEMPERATURE BLANK Observed: 0 Corrected: 2

SAMPLE TEMPERATURE

Observed. 1 2 2 Average. 2 Corrected Average. 2

COLLECTOR'S NAME: ☐ Verified from COC ☑ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A

LABELED BY .....

LABELS CHECKED BY.....

PEER REVIEW ..... ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
- WETCHEM ☑ N/A
- VOA-ENCORES ☑ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes:

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

Worksheets

HOLDING TIMES

SAMPLE DATE	SAMPLE ID	Portland LAB ID	Sacramento Lab ID	Matrix	Prep	Anal
06/29/09	23L4MW04AW	PSF0979-01	LF3H4	Aq	07/06/09	7/9 1X
06/29/09	23L4MW02AW	PSF0979-02	LF3H5	Aq	07/06/09	7/9 1X
06/29/09	23L4MW02BW	PSF0979-03	LF3H6	Aq	07/06/09	7/11 5X

7	days from collection to extraction		
Sample Date	6/29/2009	Extract By	7/6/2009
40	days fromextraction to analysis		
Sample Date	7/6/2009	Extract By	7/13/2009

TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client?	No
Did Sample Form 1s match the target compound list	NA
Were required quantitation limits provided by the client?	No
Did all compounds meet the required quantitation limits?	NA

SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN 1		DF	ACTION
All IN					

Were surrogate RTs within windows established by the ICAL?	Yes
Were there any transcription errors between the raw data and Form 2?	No
Were laboratory acceptance limits used as the basis for validation?	30-150
Did the laboratory provide CLP Form II or equivlaent?	Yes

02BW

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	F1
34-DNT A	2.535	2.5	101.4	102
34-DNT C	2.952	2.5	118.1	

MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

None Present

LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION	
LF3161A	4-a-26-DNTol	114	NA	NA		68-113
	HMX	116	NA	NA	J	67-115
	RDX	124	NA	NA	J	68-122
	135-TNTol	136	NA	NA		74-120
			NA	NA		

Were laboratory acceptance limits used as the basis for validation?	Yes
Did the laboratory provide CLP Form III or equivlaent?	Yes
Were chromatograms and quan reports present for all LCS/LCDs?	Yes

LF3161A

4-a-26-DNTol	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	1.14	1	114.0	114

%R = (Amount Found/Amount Spiked)*100

BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION
LF3161A	All Parameters	ND		#VALUE!	

NOTE Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

CALIBRATION

Initial

Are chromatograms and quan reports present for all ICAL standards?	Yes
Are CLP For VIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What linearity criteria was used?	20% RSD or 0.99
Were RT window documented?	Yes

Continuing

Are chromatograms and quan reports present for all CCV standards?	Yes
Are CLP Form VIIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What %D criteria was used?	25% D
Have all samples and standards been listed on an Analytical Sequence?	Yes
Was a proper analytical sequence followed?	Yes

INITIAL CALIBRATION - A

Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5.156
Instrument	A	Calcd Avg CF	77.892	Cald %RSD	5.156
Compound	RDX				
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/Avg CF)*100	
		CF8	79.815		

CONTINUING CALIBRATION A

Date	7/9/2009		
Time	0035		
Instrument	A		
Compound	HMX		
Reported Conc	104.5	Rptd %D	5
Calculated Conc	104.380	Cald %D	-4.38
Response	12630	ICAL CF	100
CF	121	CCV CF	104.4
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

INITIAL CALIBRATION - C

Date	6/9/2009	Rptd Avg CF	42.55812	Rptd %RSD	4.852
Instrument	C	Calcd Avg CF	42.558	Cald %RSD	4.852
Compound	RDX				
Reported CF	42.585	CF1	45.40	STD DEV	2
Calculated CF	42.78	CF2	43.70		
		CF3	42.75		
Response	8556	CF4	43.30		
Conc	200	CF5	42.16		
		CF6	42.59		
	CF = (H/C)	CF7	38.118	%RSD = (Std Dev/Avg CF)*100	
		CF8	42.452		

CONTINUING CALIBRATION C

Date	7/11/2009		
Time	0554		
Instrument	C		
Compound	HMX		
Reported Conc	184.3	Rptd %D	8
Calculated Conc	184.280	Cald %D	7.86
Response	7594	ICAL CF	200
CF	41.20913	CCV CF	184.3
	CF = (H/C)	%Difference = ((ICAL - CCV)/ICAL)*100	

FIELD DUPLICATES

COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD
PCA					#DIV/0!

NOTES Samples are not qualified on this basis.

COMPOUND IDENTIFICATION AND QUANTITATION

Has a F10 been completed for every sample containing positive results?	Yes
Was RT data presented on the form?	NA
Are RTs within the established winodws?	Yes
Any transcription or calculation errors?	No
Any false positives, negative peaks, shouldering, etc.?	No
Was GCMS confirmation needed for results > 10 µg/ml?	NA
Were percent differences or relative percent differences calculated?	NA
Are percent differences/RPDs greater than 25%?	NA
Are there any transcription errors?	No
Are Form1s present for all field and quality control samples?	No
Are chromatograms and quan reports present for all samples?	Yes
Are RLs adjusted to reflect sample dilutions, percent solids, etc.?	Yes
For soils, any precent solids <50%?	No
For soils, any precent solids <10%?	No

23L4MW02BW RDX 84 µg/L

	A	C
response	65192	31840
cf	77.89163	42.55812
final vol ml	20	20
initial L	1.0053	1.0053
df	5	5
calculated	83.2545	74.4209

PERCENT DIFFERENCE BETWEEN COLUMNS

SAMPLE	COMPOUND	A	C	RPD	QUALIFIER
23L4MW04AW	RDX	2.814	2.589	8.3	none
23L4MW02AW	HMX	3.825	3.335	13.7	none
	RDX	19.19	17.52	9.1	none
23L4MW02BW	24-DNT	0.3578	0.4359	-19.7	none
	HMX	4.265	3.572	17.7	none
	RDX	83.25	74.42	11.2	none

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Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:55

SW846 8330

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSF0979-01 (23L4MW04AW)			Water			Sampled: 06/29/09 16:30				
1,3,5-Trinitrobenzene	SW846 8330	ND	0.031	0.099	ug/L	0.99x	9187206	07/06/09 09:30	07/09/09 03:06	
1,3-Dinitrobenzene	"	ND	0.05	0.099	"	"	"	"	"	
2,4,6-Trinitrotoluene	"	ND	0.024	0.099	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	0.05	0.099	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	0.05	0.099	"	"	"	"	"	
2-Amino-4,6-dinitrotoluene	"	ND	0.099	0.2	"	"	"	"	"	
2-Nitrotoluene	"	ND	0.071	0.4	"	"	"	"	"	
3-Nitrotoluene	"	ND	0.061	0.4	"	"	"	"	"	
4-Amino-2,6-dinitrotoluene	"	ND	0.022	0.099	"	"	"	"	"	
4-Nitrotoluene	"	ND	0.071	0.5	"	"	"	"	"	
HMX	"	ND	0.027	0.099	"	"	"	"	"	
Nitrobenzene	"	ND	0.05	0.099	"	"	"	"	"	
Nitroglycerin	"	ND	0.15	0.64	"	"	"	"	"	
PETN	"	ND	0.23	0.64	"	"	"	"	"	
Picric Acid	"	ND	0.12	0.99	"	"	"	"	"	
RDX	"	2.8	0.064	0.099	"	"	"	"	"	
Tetryl	"	ND	0.05	0.099	"	"	"	"	"	
Surrogate(s): 3,4-Dinitrotoluene				99%		79 - 111 %	"		"	
PSF0979-02 (23L4MW02AW)			Water			Sampled: 06/29/09 18:00				
1,3,5-Trinitrobenzene	SW846 8330	ND	0.031	0.1	ug/L	1x	9187206	07/06/09 09:30	07/09/09 03:57	
1,3-Dinitrobenzene	"	ND	0.05	0.1	"	"	"	"	"	
2,4,6-Trinitrotoluene	"	ND	0.024	0.1	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	0.05	0.1	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	0.05	0.1	"	"	"	"	"	
2-Amino-4,6-dinitrotoluene	"	ND	0.1	0.2	"	"	"	"	"	
2-Nitrotoluene	"	ND	0.072	0.4	"	"	"	"	"	
3-Nitrotoluene	"	ND	0.062	0.4	"	"	"	"	"	
4-Amino-2,6-dinitrotoluene	"	ND	0.022	0.1	"	"	"	"	"	
4-Nitrotoluene	"	ND	0.072	0.5	"	"	"	"	"	
HMX	"	3.8	0.027	0.1	"	"	"	"	"	
Nitrobenzene	"	ND	0.05	0.1	"	"	"	"	"	
Nitroglycerin	"	ND	0.15	0.65	"	"	"	"	"	
PETN	"	ND	0.23	0.65	"	"	"	"	"	
Picric Acid	"	ND	0.12	1	"	"	"	"	"	
RDX	"	19	0.065	0.1	"	"	"	"	"	

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:55

SW846 8330

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSF0979-02 (23L4MW02AW)			Water			Sampled: 06/29/09 18:00				
Tetryl	SW846 8330	ND	*0.05*	0.1	ug/L	1x	9187206	07/06/09 09:30	07/09/09 03:57	
Surrogate(s): 3,4-Dinitrotoluene			*102%*			*79 - 111 %*	"		"	
PSF0979-03 (23L4MW02BW)			Water			Sampled: 06/29/09 21:00				
1,3,5-Trinitrobenzene	SW846 8330	ND	*0.16*	0.5	ug/L	5x	9187206	07/06/09 09:30	07/11/09 06:11	
1,3-Dinitrobenzene	"	ND	*0.25*	0.5	"	"	"	"	"	
2,4,6-Trinitrotoluene	"	ND	*0.12*	0.5	"	"	"	"	"	
2,4-Dinitrotoluene	"	**0.36**	*0.25*	0.5	"	"	"	"	"	J
2,6-Dinitrotoluene	"	ND	*0.25*	0.5	"	"	"	"	"	
2-Amino-4,6-dinitrotoluene	"	ND	*0.5*	1	"	"	"	"	"	
2-Nitrotoluene	"	ND	*0.36*	2	"	"	"	"	"	
3-Nitrotoluene	"	ND	*0.31*	2	"	"	"	"	"	
4-Amino-2,6-dinitrotoluene	"	ND	*0.11*	0.5	"	"	"	"	"	
4-Nitrotoluene	"	ND	*0.36*	2.5	"	"	"	"	"	
HMX	"	**4.3**	*0.14*	0.5	"	"	"	"	"	
Nitrobenzene	"	ND	*0.25*	0.5	"	"	"	"	"	
Nitroglycerin	"	ND	*0.75*	3.2	"	"	"	"	"	
PETN	"	ND	*1.2*	3.2	"	"	"	"	"	
Picric Acid	"	ND	*0.62*	5	"	"	"	"	"	
RDX	"	**84**	*0.32*	0.5	"	"	"	"	"	
Tetryl	"	ND	*0.25*	0.5	"	"	"	"	"	
Surrogate(s): 3,4-Dinitrotoluene			*102%*			*79 - 111 %*	"		"	

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc.	Project Name:	**Camp Bonneville Groundwater**	
5261 Fountain Drive, Suite A	Project Number:	110002 Task 6200	Report Created:
Crown Point, IN 46307	Project Manager:	James D. Peyton	07/21/09 08:55

SW846 8330 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 9187206 **WATER Preparation Method: NA**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (G9G060000206B)					QC Source:				Extracted: 07/06/09 09:30					
1,3,5-Trinitrobenzene	SW846 8330	ND	0.031	0.1	ug/L	1x	--	--	--	--	--	--	07/09/09 01:25	
1,3-Dinitrobenzene	"	ND	0.05	0.1	"	"	--	--	--	--	--	--	"	
2,4,6-Trinitrotoluene	"	ND	0.024	0.1	"	"	--	--	--	--	--	--	"	
2,4-Dinitrotoluene	"	ND	0.05	0.1	"	"	--	--	--	--	--	--	"	
2,6-Dinitrotoluene	"	ND	0.05	0.1	"	"	--	--	--	--	--	--	"	
2-Amino-4,6-dinitrotoluene	"	ND	0.1	0.2	"	"	--	--	--	--	--	--	"	
2-Nitrotoluene	"	ND	0.072	0.4	"	"	--	--	--	--	--	--	"	
3-Nitrotoluene	"	ND	0.062	0.4	"	"	--	--	--	--	--	--	"	
4-Amino-2,6-dinitrotoluene	"	ND	0.022	0.1	"	"	--	--	--	--	--	--	"	
4-Nitrotoluene	"	ND	0.072	0.5	"	"	--	--	--	--	--	--	"	
HMX	"	ND	0.027	0.1	"	"	--	--	--	--	--	--	"	
Nitrobenzene	"	ND	0.05	0.1	"	"	--	--	--	--	--	--	"	
Nitroglycerin	"	ND	0.15	0.65	"	"	--	--	--	--	--	--	"	
PETN	"	ND	0.23	0.65	"	"	--	--	--	--	--	--	"	
Picric Acid	"	ND	0.12	1	"	"	--	--	--	--	--	--	"	
RDX	"	ND	0.065	0.1	"	"	--	--	--	--	--	--	"	
Tetryl	"	ND	0.05	0.1	"	"	--	--	--	--	--	--	"	
Surrogate(s): 3,4-Dinitrotoluene		*Recovery: 102%*			*Limits: 79-111%*	"							*07/09/09 01:25*	
LCS (G9G060000206C)					QC Source:				Extracted: 07/06/09 09:30					
1,3,5-Trinitrobenzene	SW846 8330	1.36	0.031	0.1	ug/L	1x	--	1	136%	(74-120)	--	--	07/09/09 02:16	a
1,3-Dinitrobenzene	"	1.23	0.05	0.1	"	"	--	"	123%	(72-123)	--	--	"	
2,4,6-Trinitrotoluene	"	1.11	0.024	0.1	"	"	--	"	111%	(69-111)	--	--	"	
2,4-Dinitrotoluene	"	1.18	0.05	0.1	"	"	--	"	118%	(70-119)	--	--	"	
2,6-Dinitrotoluene	"	1.19	0.05	0.1	"	"	--	"	119%	(71-119)	--	--	"	
2-Amino-4,6-dinitrotoluene	"	1.22	0.1	0.2	"	"	--	"	122%	(77-123)	--	--	"	
2-Nitrotoluene	"	1.09	0.072	0.5	"	"	--	"	109%	(64-120)	--	--	"	
3-Nitrotoluene	"	1.11	0.062	0.5	"	"	--	"	111%	(67-114)	--	--	"	
4-Amino-2,6-dinitrotoluene	"	1.14	0.022	0.1	"	"	--	"	114%	(68-113)	--	--	"	a
4-Nitrotoluene	"	1.12	0.072	0.5	"	"	--	"	112%	(67-115)	--	--	"	
HMX	"	1.16	0.027	0.1	"	"	--	"	116%	"	--	--	"	a
Nitrobenzene	"	1.19	0.05	0.1	"	"	--	"	119%	(69-119)	--	--	"	
Nitroglycerin	"	5.1	0.15	0.65	"	"	--	5	102%	(85-115)	--	--	"	
PETN	"	5.24	0.23	0.65	"	"	--	"	105%	(84-117)	--	--	"	
Picric Acid	"	3.29	0.12	1	"	"	--	"	66%	(21-118)	--	--	"	
RDX	"	1.24	0.065	0.1	"	"	--	1	124%	(68-122)	--	--	"	a
Tetryl	"	0.986	0.05	0.1	"	"	--	"	99%	(66-105)	--	--	"	
Surrogate(s): 3,4-Dinitrotoluene		*Recovery: 101%*			*Limits: 79-111%*	"							*07/09/09 02:16*	

TestAmerica Portland

Estella K Rieben

Estella Rieben, Project Manager

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9G030156 Work Order #...: LF3161AC Matrix.....: WATER
LCS Lot-Sample#: G9G060000-206
Prep Date.....: 07/06/09 Analysis Date..: 07/09/09
Prep Batch #...: 9187206
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroglycerin	102	(85 - 115)	SW846 8330
PETN	105	(84 - 117)	SW846 8330
Picric Acid	66	(21 - 118)	SW846 8330
2-Amino-4,6-dinitrotoluene	122	(77 - 123)	SW846 8330
4-Amino-2,6-dinitrotoluene	114 a	(68 - 113)	SW846 8330
1,3-Dinitrobenzene	123	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	118	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	119	(71 - 119)	SW846 8330
HMX	116 a	(67 - 115)	SW846 8330
Nitrobenzene	119	(69 - 119)	SW846 8330
2-Nitrotoluene	109	(64 - 120)	SW846 8330
3-Nitrotoluene	111	(67 - 114)	SW846 8330
4-Nitrotoluene	112	(67 - 115)	SW846 8330
RDX	124 a	(68 - 122)	SW846 8330
Tetryl	99	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	136 a	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	111	(69 - 111)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	101	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G9G030156 Work Order #...: LF3161AC Matrix.....: WATER
LCS Lot-Sample#: G9G060000-206
Prep Date.....: 07/06/09 Analysis Date..: 07/09/09
Prep Batch #...: 9187206
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroglycerin	5.00	5.10	ug/L	102	SW846 8330
PETN	5.00	5.24	ug/L	105	SW846 8330
Picric Acid	5.00	3.29	ug/L	66	SW846 8330
2-Amino-4,6-dinitrotoluene	1.00	1.22	ug/L	122	SW846 8330
4-Amino-2,6-dinitrotoluene	1.00	1.14 a	ug/L	114	SW846 8330
1,3-Dinitrobenzene	1.00	1.23	ug/L	123	SW846 8330
2,4-Dinitrotoluene	1.00	1.18	ug/L	118	SW846 8330
2,6-Dinitrotoluene	1.00	1.19	ug/L	119	SW846 8330
HMX	1.00	1.16 a	ug/L	116	SW846 8330
Nitrobenzene	1.00	1.19	ug/L	119	SW846 8330
2-Nitrotoluene	1.00	1.09	ug/L	109	SW846 8330
3-Nitrotoluene	1.00	1.11	ug/L	111	SW846 8330
4-Nitrotoluene	1.00	1.12	ug/L	112	SW846 8330
RDX	1.00	1.24 a	ug/L	124	SW846 8330
Tetryl	1.00	0.986	ug/L	99	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.36 a	ug/L	136	SW846 8330
2,4,6-Trinitrotoluene	1.00	1.11	ug/L	111	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	101	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

HPLC

Client Lot #...: G9G030156 Work Order #...: LF3161AA Matrix.....: WATER
MB Lot-Sample #: G9G060000-206

Prep Date.....: 07/06/09
Analysis Date..: 07/09/09 Prep Batch #...: 9187206
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-dinitrotoluene	ND	0.20	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	102	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

DE

TestAmerica West Sacramento
ESC-Extraction Master Sheet

Auto trace 1

Holding Time Due: 7/6/09
BATCH #: 9187206
Test #: 8330-L Picric Acid

Project Due: 7/15/09
Initiated By: TP
Extn Comp'd By: TP

Date: 7/6/09
Date: 7/8/09

SOP No.: WS-LC-0009

EXTRACTION COMMENTS:

QC Code	Lab ID	Sample Size / Initial Mass	Final Volume / Final Mass	Difference in Mass
B	MB	See weight Sheet		
C	LCS			
	G9G030156-01	7/8/09 TP		
	G9G030156-02			
	G9G030156-03			
	7/8/09 TP			

QC Codes	Standard Information				
	Volume	STD ID	Exp. Date	STD Name/Conc.	ppm/np
All	50ul	09GCSV0172	12/10/09	8330 Surr 50ug/mL	0.5
C	20ul	09GCSV0037	7/7/09	3,5 DNA 50ug/mL	0.5
C	100ul	09GCSV0149	11/1/09	NG/PETN 50ug/mL	1.0
C	100ul	09GCSV0039	7/7/09	Picric Acid 50ug/mL	5.0

Spiked By / Date: TP 7/6/09 Witnessed By / Date: HD 7-6-09

QC Codes: B = MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/08/09
Time: 11:09:59

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
_	_	MS/MSD	Y	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGrou
_ Bench Sheet Copied per COC

Extractionist: 002448 Tuan Q. Phan

Concentrationist: 002448 Tuan Q. Phan

****
* *
* QC BATCH: 9187206 *
* *
****

PREP DATE: 7/06/09 9:30
COMP DATE: 7/08/09 10:00

Reviewer/Date: PHANT / 7/08/09

Nitroaromatics & Nitramines: Explosives (8330)
SOLID PHASE EXTRACTION (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/06/09	7/15/09	G9G030156-001 LF3H4-1-AC	R	B7	A0	WATER	1007.3mL 20.00mL	NA	NA	NA	HOAN/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV172
COMMENTS:															
7/06/09	7/15/09	G9G030156-002 LF3H5-1-AC	R	B7	A0	WATER	996.15mL 20.00mL	NA	NA	NA	HOAN/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV172
COMMENTS:															
7/06/09	7/15/09	G9G030156-003 LF3H6-1-AC	R	B7	A0	WATER	1005.3mL 20.00mL	NA	NA	NA	HOAN/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV172
COMMENTS:															
7/06/09	0/00/00	G9G060000-206 LF316-1-AAB		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAN/ACN	4.5	HOAC/ACN	5.0	50UL-09GCSV172
COMMENTS:															
7/06/09	0/00/00	G9G060000-206 LF316-1-ACC		B7	A0	WATER	1000mL 20.00mL	NA	NA	NA	HOAN/ACN	4.5	HOAC/ACN	5.0	SEE BENCH SHEET 50UL-09GCSV172
COMMENTS:															

LCS SPIKE 20UL-09GCSV0037 100UL-09GCSV0149 100UL-09GCSV0039; .1% HOAC/ACN 2991-95; HOAC/H2O 2991-87B; SPE COLUMN WATER LOT 003339096A; SODIUM CHLORIDE LOT H070582 MALLINCKRODT; .45 MILLIPORE WATER LOT R5PN29184

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 5

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Page# 36

Inst ID: LC10 Batch ID: 06102009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUN-2009	14:42	fhk	Blank	A-000001.	0 g	0 mL	1	
10-JUN-2009	15:33	fhk	STD_1 09GCSV0048 5.0/0/0/0ng/m	A-000002.	0 g	0 mL	1	
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049 10/20/10/10ng	A-000003.	0 g	0 mL	1	
10-JUN-2009	17:14	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000004.	0 g	0 mL	1	Bad Std
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051 50/100/50/50n	A-000005.	0 g	0 mL	1	
10-JUN-2009	18:56	fhk	STD_5 09GCSV0053 100/200/100/1	A-000006.	0 g	0 mL	1	
10-JUN-2009	19:46	fhk	STD_6 09GCSV0054 200/500/200/2	A-000007.	0 g	0 mL	1	
10-JUN-2009	20:37	fhk	STD_7 09GCSC0055 500/1000/500/	A-000008.	0 g	0 mL	1	
10-JUN-2009	21:28	fhk	STD_8 09GCSV0056 1000/2000/100	A-000009.	0 g	0 mL	1	
10-JUN-2009	22:18	fhk	Blank	A-000010.	0 g	0 mL	1	
10-JUN-2009	23:09	fhk	ICV_6 09GCSV0397 100/200/100/1	A-000011.	0 g	0 mL	1	
11-JUN-2009	00:00	fhk	STD_5 09GCSV0053 100/200/100/1	A-000012.	0 g	0 mL	1	
11-JUN-2009	00:50	fhk	Surrogate 100ng/mL	A-000013.	0 g	0 mL	1	
11-JUN-2009	12:56	fhk	Primer	A-000014.	0 g	0 mL	1	
11-JUN-2009	13:47	fhk	STD_3 09GCSV0050 20/50/20/20ng	A-000015.	0 g	0 mL	1	Injected New Std

JM 6/11/09

Reported

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500 000 Level 7	1000 000 Level 8						
2 HMX	119	120	115	125	123	124		
	116	123					121	3.066
3 RDX	81.80000	75.90000	77.15000	80 72000	78 45000	80 13000		
	69 16800	79.81500					77.89163	5.156
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Picric ACID	+++++	+++++	91.72000	85.68000	84.85500	84.88200		
	74.63400	74.87800					82 77483	8.120
6 1,3,5-Trinitrobenzene	161	146	145	150	147	148		
	136	147					148	4.610
7 1,3-Dinitrobenzene	145	142	138	142	139	142		
	128	141					140	3 715
8 3,5-Dinitroaniline	97.20000	90.80000	89 35000	91 80000	88.83000	90.35000		
	82.20800	89.25000					89.97350	4.581
9 TETRYL	97.60000	95.10000	77.40000	96 02000	94.31000	95.06000		
	92.43000	94.40900					92 79113	6.888

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
10 Nitrobenzene	63.80000	62.30000	56.55000	61.44000	61.06000	62.26000		
	56.02600	61.95700					60.67412	4.659
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	94.80000	90.20000	81.90000	88.72000	87.04000	87.55500		
	84.22200	87.17800					87.70937	4.401
13 4-AM-2,6-DNT	67.00000	63.30000	60.85000	63.26000	61.61000	62.67000		
	58.65400	61.14600					62.31125	3.901
14 2-AM-4,6-DNT	74.80000	75.80000	73.10000	75.54000	73.53000	74.39000		
	69.18400	72.13500					73.55987	2.932
15 2,6-Dinitrotoluene	57.60000	53.30000	51.90000	53.68000	53.03000	53.21500		
	50.43000	52.74900					53.23800	3.835
16 2,4-Dinitrotoluene	93.00000	86.50000	82.60000	86.20000	84.72000	85.49000		
	81.43200	85.05700					85.62488	4.031
17 2-Nitrotoluene	40.80000	37.40000	33.20000	35.64000	35.21000	35.77500		
	33.97400	35.45000					35.93113	6.486
18 4-Nitrotoluene	48.00000	46.40000	40.75000	43.56000	43.22000	43.56500		
	41.67600	43.21300					43.79800	5.390
19 3-Nitrotoluene	47.00000	44.60000	39.85000	43.24000	42.93000	43.08000		
	41.51600	42.82400					43.13000	4.852
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	50.10000	46.40000	46.48000	45.87000	46.85500		
	46.98000	48.38600					47.16729	3.251

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-
Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-
Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-
Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD	
	1000.000 Level 8								
2 HMX	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
3 RDX	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
4 EGDN	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
5 Picric ACID	+++++	134	126	125	125	110			
	110						122	8.080	
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
8 3,5-Dinitroaniline	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
9 TETRYL	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
10 Nitrobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****
11 Nitroglycerin	*****	61.25000	59.82000	60.58000	61.86500	59.75400	61.73900	60.83467	1.527
12 2,4,6-Trinitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
13 4-AM-2,6-DNT	*****	*****	*****	*****	*****	*****	*****	*****	*****
14 2-AM-4,6-DNT	*****	*****	*****	*****	*****	*****	*****	*****	*****
15 2,6-Dinitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
16 2,4-Dinitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
17 2-Nitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
18 4-Nitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
19 3-Nitrotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****
20 PETN	*****	32.65000	30.36000	31.91000	32.25000	32.38000	32.75200	32.05033	2.748

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23
End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
$ 1 3,4-Dinitrotoluene	★ +++++	90.40000	88.76000	88.28000	90.51000	88.03567		
	93.14200						89.85478	2.142

★ Level 2 dropped due to poor integration
6/12/09

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 6/10/2009 23:09 Operator: ftk

DataFile: LC10.I\05102009.B\A-000011.D Vial Num: 20

Instrument ID: LC10

Method 8330 Target Analyte Results

Sample: **ICV_6 08GCSV0397 100/200/100/100ng/mL**

Method File: LC10.I\05102009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 100/200/100/100ng/mL;2

Misc. Info: ;6; ; ; ;3;CAL.sub; ;0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	~~Fails~~					200	-100%	Fails		(±15)	
HMX	5.29	26153	216.4000<	200	8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.84	16084	206.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.00	41754	504.4000 ✓	500	1%	Acceptable		9.00	61509	505.5000< ✓	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.25	27834	199.2000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.30	17776	191.6000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000< ✓	200	-4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.28	10445	196.2000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.00	16653	194.5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.49	8451	195.9000< ✓	200	-2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206.3000< ✓	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.10	5630	181.9000< ✓	200	-9%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 6/11/2009 3:26 PM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07082009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Dilu	Comments
08-JUL-2009	16:09	fhk	Primer	A-000001.	0 g	0 mL	1	
08-JUL-2009	16:59	fhk	Primer	A-000002.	0 g	0 mL	1	
08-JUL-2009	17:50	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000003	0 g	0 mL	1	
08-JUL-2009	18:41	fhk	LF1EN1AA 9183251 G9G020000-251	A-000004.	1000 mL	20 mL	1	
08-JUL-2009	19:31	fhk	LF1EN1AC 9183251 G9G020000-251	A-000005.	1000 mL	20 mL	1	
08-JUL-2009	20:22	fhk	LFXXW1AC 9183251 G9G010225-1 1	A-000006.	1021.57 mL	20 mL	1	
08-JUL-2009	21:12	fhk	LFXX61AC 9183251 G9G010225-2 1	A-000007.	1022.4 mL	20 mL	1	
08-JUL-2009	22:03	fhk	LFX111AC 9183251 G9G010225-3 1	A-000008.	1024.15 mL	20 mL	1	
08-JUL-2009	22:53	fhk	LFX121AC 9183251 G9G010225-4 1	A-000009.	1019.2 mL	20 mL	1	
08-JUL-2009	23:44	fhk	LFX151AC 9183251 G9G010225-5 1	A-000010.	1021.92 mL	20 mL	1	
09-JUL-2009	00:35	fhk	STD_5 09GCSV0053 .2K/.1/ 1/ 1/	A-00001..	0 g	0 mL	1	
09-JUL-2009	01:25	fhk	LF3161AA 9187206 G9G060000-206	A-000012.	1000 mL	20 mL	1	
09-JUL-2009	02:16	fhk	LF3161AC 9187206 G9G060000-206	A-000013.	1000 mL	20 mL	1	
09-JUL-2009	03:06	fhk	LF3H41AC 9187206 G9G030156-1 1	A-000014.	1007.3 mL	20 mL	1	
09-JUL-2009	03:57	fhk	LF3H51AC 9187206 G9G030156-2 1	A-000015.	996.15 mL	20 mL	1	
09-JUL-2009	04:47	fhk	LF3H61AC 9187206 G9G030156-3 1	A-000016	1005.3 mL	20 mL	1	
09-JUL-2009	05:38	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000017.	0 g	0 mL	1	

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date: 7/9/2009 0 35 Operator: fhk

DataFile: LC10 I\07082009 B\A-000011 D Vial Num: 3

Instrument ID: LC10

Method 8330 Target Analyte Results

Sample : **STD_5 09GCSV0053 .2K/.1/.1/.1/.1**

Method File: LC10 I\07082009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13 47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_5 09GCSV0053 .2K/.1/.1/.1/ 1;2

Misc. Info: .5; , : ,3,CAL sub, ,0.1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4 Dinitrotoluene	18 20	4739	100.5000<	100	1%	Acceptable		18.21	9063	104 8000	100	5%	Acceptable		(±15)	
HMX	5.29	12630	104 5000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7.85	8029	103.1000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9 05	16777	202.7000	200	1%	Acceptable		9 06	24679	202 8000<	200	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10 20	15097	102 3000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 26	14436	103 3000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14 34	9407	101 4000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15 18	6290	103 7000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.56	8976	102 3000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 55	6365	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.62	7472	101 6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20 35	5434	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.06	8697	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.79	3631	101.0000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26.60	4405	100.6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28 62	4379	101.5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15 81	6320	103.9000<	100	4%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30.24	3390	105 4000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	14 01	9130	101 5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails		NAF			100	-100%	Fails		(±15)	

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/9/2009 9:27 AM

Test America West Sacramento

Method 8330

Data file : \\Terastation\share\GCdata\LC10.I\07082009.B\A-000011.D
Lab Smp Id: STD_5 09GCSV0053 .2
Inj Date : 09-JUL-2009 00:35
Operator : fhk Inst ID: LC10.i
Smp Info : STD_5 09GCSV0053 .2K/.1/.1/.1/.1;2
Misc Info : ;5; ; ; ;3;CAL.sub; ;0;1
Comment : SOP SAC-LC-0009
Method : \\Terastation\share\GCdata\LC10.I\07082009.B\8330AB.m
Meth Date : 09-Jul-2009 01:21 tap Quant Type: AREA%
Cal Date : 11-JUN-2009 13:47 Cal File: A-000015.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon+ Compound Sublist: CAL.sub
Target Version: 4.14
Processing Host: SACP307HPLC

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS
5.289	81309	12630	0.155	8.64		2 HMX
7.849	92683	8029	0.087	5.49		3 RDX
8.599	1160	108	0.093	0.07		
9.052	241185	16777	0.070	11.58		5 Picric ACID
10.202	207248	15097	0.073	10.33		6 1,3,5-Trinitrobenze
12.785	119	30	0.252	0.02		
13.259	246389	14436	0.059	9.88		7 1,3-Dinitrobenzene
14.005	151716	9130	0.060	6.25		8 3,5-Dinitroaniline
14.335	168680	9407	0.056	6.43		9 TETRYL
15.179	121046	6290	0.052	4.30		10 Nitrobenzene
16.559	173239	8976	0.052	6.14		12 2,4,6-Trinitrotolue
17.552	134801	6365	0.047	4.35		13 4-AM-2,6-DNT
18.202	90656	4739	0.052	3.24	$	1 3,4-Dinitrotoluene
18.622	179304	7472	0.042	5.11		14 2-AM-4,6-DNT
20.349	124935	5434	0.043	3.71		15 2,6-Dinitrotoluene
21.062	214815	8697	0.040	5.95		16 2,4-Dinitrotoluene
22.369	505	45	0.089	0.03		
24.785	102226	3631	0.036	2.48		17 2-Nitrotoluene
26.599	132676	4405	0.033	3.01		18 4-Nitrotoluene
28.622	142181	4379	0.031	2.99		19 3-Nitrotoluene
	2606872	146077		100.000		

Total unknown % height = 0.1200

TestAmerica West Sacramento

A-000017.D

Chromatography Summary

Injection Date: 7/9/2009 5:38 Operator: fhk

DataFile: LC10 I\07082009 B\A-000017 D Vial Num: 4

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample: **STD_6 09GCSV0054 .4K/.2/.2/.2/.2**

Method File: LC10 I\07082009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 4K/.2/.2/.2/.2

Misc. Info: ,6, , , ,3:CAL sub; ;0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.21	9682	205.3000<	200	3%	Acceptable		18.21	18470	213.6000	200	7%	Acceptable		(±15)	
HMX	5.29	25614	212.0000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7.85	16441	211.1000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9.03	42453	512.9000	500	3%	Acceptable		9.03	62382	512.7000<	500	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	30599	207.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.26	29254	209.4000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14.34	19071	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.18	12804	211.0000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.56	18126	206.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.56	12935	207.6000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.62	15164	206.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.35	10941	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.07	17582	205.3000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24.78	7317	203.6000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.60	8872	202.6000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.62	8820	204.5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.81	12540	206.1000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30.24	6614	207.0000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.01	18615	206.9000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 7/9/2009 9:29 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Page# _____

Inst ID: LC10 Batch ID: 07102009
Method : Method 8330 Test : SOP SAC-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUL-2009	11:38	fhk	Primer	A-000001.	0 g	0 mL	1	
10-JUL-2009	12:29	fhk	Primer	A-000002.	0 g	0 mL	1	
10-JUL-2009	13:20	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	A-000003.	0 g	0 mL	1	
10-JUL-2009	14:10	fhk	LF4ER1AA 9187409 G9G060000-409	A-000004.	2 g	40 mL	1	
10-JUL-2009	15:01	fhk	LF4ER1AC 9187409 G9G060000-409	A-000005.	2 g	40 mL	1	
10-JUL-2009	15:51	fhk	LFVNN1AA 9187409 A9F300167-1 1	A-000006.	1.98 g	40 mL	1	
10-JUL-2009	16:42	fhk	LFVPW1AA 9187409 A9F300167-2 1	A-000007.	1.98 g	40 mL	1	
10-JUL-2009	17:32	fhk	LFVP11AA 9187409 A9F300167-3 1	A-000008.	2 03 g	40 mL	1	
10-JUL-2009	18:23	fhk	LFVP31AA 9187409 A9F300167-4 1	A-000009.	2.01 g	40 mL	1	
10-JUL-2009	19:13	fhk	LFVP41AA 9187409 A9F300167-5 1	A-000010.	2.01 g	40 mL	1	
10-JUL-2009	20:04	fhk	LFVP81AA 9187409 A9F300167-6 1	A-000011.	2.01 g	40 mL	1	
10-JUL-2009	20:54	fhk	LFVP91AA 9187409 A9F300167-7 1	A-000012.	1.99 g	40 mL	1	
10-JUL-2009	21:45	fhk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000013.	0 g	0 mL	1	
10-JUL-2009	22:36	fhk	LFR101AA 9187409 A9F290128-4 1	A-000014.	2 g	40 mL	1	
10-JUL-2009	23:26	fhk	LFR101AD 9187409 A9F290128-4 S	A-000015.	1.99 g	40 mL	1	
11-JUL-2009	00:17	fhk	LFR101AE 9187409 A9F290128-4 D	A-000016.	1.99 g	40 mL	1	
11-JUL-2009	01:07	fhk	LFR111AA 9187409 A9F290128-5 1	A-000017.	1.99 g	40 mL	1	
11-JUL-2009	01:58	fhk	LFR121AA 9187409 A9F290128-6 1	A-000018.	2 g	40 mL	1	
11-JUL-2009	02:48	fhk	LFR131AA 9187409 A9F290128-7 1	A-000019.	2 g	40 mL	1	
11-JUL-2009	03:39	fhk	LFR141AA 9187409 A9F290128-8 1	A-000020	1.99 g	40 mL	1	
11-JUL-2009	04:29	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	A-000021.	0 g	0 mL	1	
11-JUL-2009	05:20	fhk	LF3161ACC 9187206 LCS 1X	A-000022.	1000 mL	20 mL	1	
11-JUL-2009	06:11	fhk	LF3H61AC 9187206 G9G030156-3 5	A-000023.	1005 3 mL	20 mL	5	
11-JUL-2009	07:01	fhk	LF7A31AAB 9189394 MB 1X	A-000024.	10 g	80 mL	1	
11-JUL-2009	07:52	fhk	LF7A31ACC 9189394 LCS 1X	A-000025.	10 g	80 mL	1	
11-JUL-2009	08:42	fhk	LFX4Q1AA 9189394 G9G010246-1 1	A-000026.	10.01 g	80 mL	1	
11-JUL-2009	09:33	fhk	LFX4Q1ACS 9189394 G9G010246-1M	A-000027.	10 g	80 mL	1	
11-JUL-2009	10:23	fhk	LFX4Q1ADD 9189394 G9G010246-1M	A-000028.	9.99 g	80 mL	1	
11-JUL-2009	11:14	fhk	LFX4R1AA 9189394 G9G010246-2 1	A-000029.	9.06 g	80 mL	1	
11-JUL-2009	12:04	fhk	LFX4T1AA 9189394 G9G010246-3 1	A-000030.	10.01 g	80 mL	1	
11-JUL-2009	12:55	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	A-000031.	0 g	0 mL	1	
11-JUL-2009	13:45	fhk	LF5WA1AAB 9188431 MB 1X	A-000032.	2 g	40 mL	1	
11-JUL-2009	14:36	fhk	LF5WA1ACC 9188431 LCS 1X	A-000033.	2 g	40 mL	1	
11-JUL-2009	15:26	fhk	LFXP31AA 9188431 A9G010193-1 1	A-000034.	2 g	40 mL	1	
11-JUL-2009	16:17	fhk	LFXP31AES 9188431 A9G010193-1M	A-000035.	2 g	40 mL	1	
11-JUL-2009	17:07	fhk	LFXP31AFD 9188431 A9G010193-1M	A-000036.	2 g	40 mL	1	
11-JUL-2009	17:58	fhk	LFXQQ1AA 9188431 A9G010193-2 1	A-000037.	2 02 g	40 mL	1	
11-JUL-2009	18:48	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	A-000038.	0 g	0 mL	1	

TestAmerica West Sacramento

A-000021.D

Chromatography Summary

Injection Date: 7/11/2009 4 29 Operator: fhk

DataFile: LC10.I\07102009.B\A-000021.D Vial Num: 4

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample : **STD_5 09GCSV0238 .2K/.1/.1/.1/.1**

Method File: LC10.I\07102009.B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL,sub SpikeList:

Samp. Info: STD_5 09GCSV0238 2K/.1/.1/.1/.1,2

Misc. Info: ;5; ; , ,3;CAL sub; ,0;1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.23	4761	100.9000<	100	1%	Acceptable		18.22	9142	105.8000	100	6%	Acceptable		(±15)	
HMX	5.29	12731	105.4000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7.85	8006	102.8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9.07	17082	206.4000	200	3%	Acceptable		9.07	25079	206.1000<	200	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.21	14836	100.5000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13.27	14248	102.0000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14.35	9417	101.5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15.19	6384	105.2000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.57	9006	102.7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.57	6469	103.8000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.63	7621	103.6000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.36	5436	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21.08	8612	100.6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.80	3719	103.5000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26.63	4483	102.4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28.64	4429	102.7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15.83	6116	100.5000<	100	1%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30.27	3354	104.6000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	14.01	9259	102.9000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:51 AM

TestAmerica West Sacramento

A-000031.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/11/2009 12 55 Operator: fhk

DataFile: '.C10 I\07102009.B\A-000031.D Vial Num: 5

Instrument ID: .C10

Sample : **STD_5 09GCSV0238 .2K/.1/.1/.1/.1**

Method File: LC10 I\07102009 B\8330AB.M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL.sub SpikeList:

Samp. Info: STD_5 09GCSV0238 .2K/.1/.1/ 1/ 1.2

Misc. Info: ,5, ; , ,3,CAL.sub, ,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 24	4768	101.1000<	100	1%	Acceptable		18 25	9178	106 2000	100	6%	Acceptable		(±15)	
HMX	5.29	12737	105.4000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7 86	8013	102 9000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID	9.07	17075	206.3000	200	3%	Acceptable		9 08	25051	205.9000<	200	3%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10 21	14849	100 6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 28	14249	102.0000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14 37	9416	101.5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15 21	6360	104.8000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.59	8994	102.5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.60	6456	103 6000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.66	7636	103 8000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.39	5431	102 0000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	21 10	8609	100 5000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24 83	3699	102.9000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26.66	4472	102 1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28.68	4415	102.4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15 85	6140	100 9000<	100	1%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30 33	3344	104 3000<	100	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	14 03	9257	102 9000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 2:11 PM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 06092009
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
09-JUN-2009	17:40	fhk	Primer	C-000001.	0 g	0 mL	1	
09-JUN-2009	18:46	fhk	Primer	C-000002	0 g	0 mL	1	
09-JUN-2009	19:49	fhk	BLANK	C-000003.	0 g	0 mL	1	
09-JUN-2009	20:53	fhk	STD_1 09GCSV0048 5/0/0/0/0	C-000004	0 g	0 mL	1	
09-JUN-2009	21:56	fhk	STD_2 09GCSV0049 10/20/10/10/1	C-000005.	0 g	0 mL	1	
09-JUN-2009	22:59	fhk	STD_3 09GCSV0050 20/50/20/20/2	C-000006.	0 g	0 mL	1	
10-JUN-2009	00:03	fhk	STD_4 09GCSV0051 50/100/50/50/	C-000007.	0 g	0 mL	1	
10-JUN-2009	01:07	fhk	STD_5 09GCSV0053 100/200/100/1	C-000008.	0 g	0 mL	1	
10-JUN-2009	02:11	fhk	STD_6 09GCSV0054 200/500/200/2	C-000009.	0 g	0 mL	1	
10-JUN-2009	03:16	fhk	STD_7 09GCSV0055 500/1000/500/	C-000010.	0 g	0 mL	1	
10-JUN-2009	04:20	fhk	STD_8 09GCSV0056 1000/2000/1K/	C-000011.	0 g	0 mL	1	
10-JUN-2009	05:25	fhk	BLANK	C-000012.	0 g	0 mL	1	
10-JUN-2009	06:29	fhk	ICV_6 08GCSV0397 200/500/200/2	C-000013.	0 g	0 mL	1	
10-JUN-2009	07:33	fhk	STD_5 09GCSV0053 100/200/100/1	C-000014	0 g	0 mL	1	

Confirmation?

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000004.d
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	500.000 Level 7	1000.000 Level 8							
2 HMX	49.60000	43.70000	40.45000	40.46000	39.51000	39.31500			
	37.41800	39.22000					41.20913	9.288	
3 RDX	45.40000	43.70000	42.75000	43.30000	42.16000	42.58500			
	38.21800	42.45200					42.55812	4.852	
4 EGDN	*****	*****	*****	*****	*****	*****			
	*****	*****					*****	*****	<-
5 Picric ACID	*****	*****	*****	*****	*****	*****			
	*****	*****					*****	*****	<-
6 1,3,5-Trinitrobenzene	66.80000	67.20000	67.60000	68.82000	67.02000	67.61500			
	63.46600	67.27500					66.97450	2.306	
7 1,3-Dinitrobenzene	95.20000	88.70000	87.25000	89.40000	87.58000	88.56500			
	79.37000	88.38800					88.05662	4.893	
8 3,5-Dinitroaniline	71.20000	68.50000	68.65000	68.54000	66.12000	66.97500			
	60.97200	65.89900					67.10700	4.478	
9 TETRYL	93.20000	86.50000	85.70000	86.92000	86.05000	86.26500			
	85.04400	86.33600					87.00187	2.950	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
10 Nitrobenzene	39.40000	42.00000	38.65000	40.64000	39.79000	40.66500		
	35.35200	40.30500					39.60025	5.005
11 Nitroglycerin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
12 2,4,6-Trinitrotoluene	104	91.00000	81.00000	77.16000	74.32000	73.90500		
	71.97000	73.60800					80.89538	13.892
13 4-AM-2,6-DNT	68.80000	69.80000	68.05000	67.74000	65.37000	65.85500		
	64.80800	65.14700					66.94625	2.818
14 2-AM-4,6-DNT	80.20000	76.80000	75.45000	74.52000	72.25000	73.07500		
	69.79400	72.19800					74.28838	4.343
15 2,6-Dinitrotoluene	54.80000	52.40000	49.70000	49.88000	49.11000	49.44000		
	45.69200	49.41100					50.05412	5.280
16 2,4-Dinitrotoluene	83.00000	82.40000	79.60000	80.22000	78.86000	79.32000		
	73.10400	78.73900					79.40538	3.779
17 2-Nitrotoluene	24.50000	25.30000	23.52500	24.39000	24.32500	24.51250		
	22.18600	24.28200					24.12756	3.813
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++ <-
19 3-Nitrotoluene	35.00000	32.50000	30.55000	31.42000	30.76000	31.17500		
	28.82000	30.96400					31.39862	5.672
20 PETN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	500.000 Level 7	1000.000 Level 8						
$ 1 3,4-Dinitrotoluene	+++++	46.40000	40.85000	39 44000	38 04000	38.34500		
	35.87333	38.62800					39.65376	8.405

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\C-0
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d\C-0
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\C-0
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d\C-0
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d\C-0
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d\C-0
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d\C-0

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD	
2 HMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 RDX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 EGDN	+++++	39.00000	42.36000	44.25000	44.94000	40.36600	42.86600	42.29700	5.363	
5 Picric ACID	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 3,5-Dinitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 TETRYL	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	RRF	% RSD
	1000.000 Level 8							
10 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
11 Nitroglycerin	+++++	55.25000	55.16000	56.31000	57.02000	56.37800		
	57.30100						56.23650	1.571
12 2,4,6-Trinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
13 4-AM-2,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
14 2-AM-4,6-DNT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
15 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
16 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
17 2-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
18 4-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
19 3-Nitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
20 PETN	+++++	104	101	102	104	104		
	105						103	1.208

TestAmerica West Sacramento

INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

Compound	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD	
$ 1 3,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

TestAmerica West Sacramento

C-000013.D

Chromatography Summary

Injection Date: 6/10/2009 6 29 Operator: fnk

DataFile: LC9 I\06092009.B\C-000013.D Vial Num: 20

Instrument ID: LC9

Method 8330 Target Analyte Results

Sample : ICV_6 08GCSV0397 200/500/200/200/200

Method File: LC9 I\06092009.B\8330CNAB M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4 20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: ICV_6 08GCSV0397 200/500/200/200/200;2

Misc. Info: ,6,,,,;3;CAL sub,,0,1

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	31.18	259	6.5320<	200	-97%	Fails					200	-100%	Fails		(±15)	4S
HMX	35.11	8323	202 0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	4S
RDX	25 60	8556	201 0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	4S
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21 78	13318	198.8000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	4S
1,3-Dinitrobenzene	19.50	17403	197 6000<	200	-1%	Acceptable					200	-100%	Fails		(±15)	4S
TETRYL	40.80	16134	185.4000<	200	-7%	Acceptable					200	-100%	Fails		(±15)	4S
Nitrobenzene	16.81	7967	201 2000<	200	1%	Acceptable					200	-100%	Fails		(±15)	4S
2,4,6-Trinitrotoluene	32 92	14562	180.0000<	200	-10%	Acceptable					200	-100%	Fails		(±15)	4S
4-AM-2,6-DNT	29.55	12516	187 0000<	200	-7%	Acceptable					200	-100%	Fails		(±15)	4S
2-AM-4,6-DNT	29 21	14216	191.4000<	200	-4%	Acceptable					200	-100%	Fails		(±15)	4S
2,6-Dinitrotoluene	27 26	9755	194.9000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	4S
2,4-Dinitrotoluene	26 42	15486	195.0000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	4S
2-Nitrotoluene	22 83	9684	401.4000<	400	0%	Acceptable					400	-100%	Fails		(±15)	4S
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	23.35	6108	194 5000<	200	-3%	Acceptable					200	-100%	Fails		(±15)	4S
Nitroglycerin				200	-100%	Fails		38 67	11785	209 6000<	200	5%	Acceptable		(±15)	4S
PETN				200	-100%	Fails		49 13	19084	184 7000<	200	-8%	Acceptable		(±15)	4S
3,5-Dinitroaniline	25 06	13705	204 2000<	200	2%	Acceptable					200	-100%	Fails		(±15)	4S
EGDN				200	-100%	Fails		18.01	9041	213.8000	200	7%	Acceptable		(±15)	4S

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 6/10/2009 10:43 AM

TestAmerica West Sacramento
GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 07102009A
Method : Method 8330 Test : SOP WS-LC-0009
ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or Wt	Extract Vol	Diln	Comments
10-JUL-2009	17:28	fhk	Primer	C-000001.	0 g	0 mL	1	
10-JUL-2009	18:30	fhk	Primer	C-000002.	0 g	0 mL	1	
10-JUL-2009	19:32	fhk	STD_5 09GCSV0238 .2K/.1/ 1/ 1/	C-000003.	0 g	0 mL	1	
10-JUL-2009	20:34	fhk	LF1EN1AA 9183251 G9G020000-251	C-000004.	1000 mL	20 mL	1	
10-JUL-2009	21:36	fhk	LFXXW1AC 9183251 G9G010225-1 1	C-000005.	1021.57 mL	20 mL	1	
10-JUL-2009	22:39	fhk	LFX111AC 9183251 G9G010225-3 1	C-000006.	1024.15 mL	20 mL	1	
10-JUL-2009	23:41	fhk	LFX121AC 9183251 G9G010225-4 1	C-000007.	1019.2 mL	20 mL	1	
11-JUL-2009	00:43	fhk	LFX151AC 9183251 G9G010225-5 1	C-000008.	1021.92 mL	20 mL	1	
11-JUL-2009	01:45	fhk	LF7A31AA 9189394 G9G080000-394	C-000009.	10 g	80 mL	1	
11-JUL-2009	02:48	fhk	LFX4Q1AA 9189394 G9G010246-1 1	C-000010.	10.01 g	80 mL	1	
11-JUL-2009	03:50	fhk	LFX4R1AA 9189394 G9G010246-2 1	C-000011.	9.06 g	80 mL	1	
11-JUL-2009	04:52	fhk	LFX4T1AA 9189394 G9G010246-3 1	C-000012.	10.01 g	80 mL	1	
11-JUL-2009	05:54	fhk	STD_6 09GCSV0054 .5K/.2/.2/ 2/	C-000013.	0 g	0 mL	1	
11-JUL-2009	06:57	fhk	LF3161AA 9187206 G9G060000-206	C-000014.	1000 mL	20 mL	1	
11-JUL-2009	07:59	fhk	LF3H41AC 9187206 G9G030156-1 1	C-000015.	~~1000~~ mL	20 mL	1	1007.3 mL
11-JUL-2009	09:01	fhk	LF3H51AC 9187206 G9G030156-2 1	C-000016.	1000 mL	20 mL	1	996.15
11-JUL-2009	10:03	fhk	LF3H61AC 9187206 G9G030156-3 5	C-000017.	~~1000~~ mL	20 mL	5	1005.3
11-JUL-2009	11:06	fhk	LF5WA1AA 9188431 G9G070000-431	C-000018.	2 g	40 mL	1	
11-JUL-2009	12:08	fhk	LFXP31AA 9188431 A9G010193-1 1	C-000019.	2 g	40 mL	1	
11-JUL-2009	13:10	fhk	LFXQQ1AA 9188431 A9G010193-2 1	C-000020.	2.02 g	40 mL	1	
11-JUL-2009	14:12	fhk	LFW791AA8 9182192 MB 1X	C-000021	1000 mL	20 mL	1	
11-JUL-2009	15:14	fhk	LFV9M1AC 9182192 G9F300242-5 1	C-000022.	1016 72 mL	20 mL	1	
11-JUL-2009	16:16	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	C-000023	0 g	0 mL	1	

TestAmerica West Sacramento

C-000013.D

Chromatography Summary

Injection Date: 7/11/2009 5 54 Operator: fhk

DataFile: LC9 I\07102009A B\C-000013 D Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID: LC9

Sample : **STD_6 09GCSV0054 .5K/.2/.2/.2/.2**

Method File: LC9.I\07102009A B\8330CNAB.M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4.20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CAL sub SpikeList:

Samp. Info: STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Misc. Info: , 6, , , , 3, CAL sub, , ; 0; 1; 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30 69	8487	214 0000<	200	7%	Acceptable					200	-100%	Fails		(±15)	45
HMX	34 67	7594	184.3000<	200	-8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25.16	8673	203 8000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21 54	13992	208.9000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19 18	18240	207 1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	40 38	18246	209 7000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16.47	8291	209 4000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32 59	16243	200.8000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29 08	13363	199 6000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28 74	14987	201.7000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26 81	10167	203 1000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	25 99	16528	208.1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22 38	10164	421.3000<	400	5%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	22 90	6323	201.4000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38.25	11803	209.9000<	200	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		48 78	21503	208 1000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroaniline	24 65	13757	205 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails		17 80	9381	221 8000	200	11%	Acceptable		(±15)	45

Notes. M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:30 AM

TestAmerica West Sacramento

C-000023.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/11/2009 16:16 Operator: fnk
DataFile: LC9.I\07102009A B\C-000023.D Vial Num: 4
Instrument ID: LC9

Sample : **STD_5 09GCSV0238 .2K/.1/.1/.1/.1**

Method File: LC9 I\07102009A B\8330CNAB M
Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

Matrix: NONE SubList: CALsub SpikeList:
Samp. Info: STD_5 09GCSV0238 2K/ 1/ 1/.1/ 1,2
Misc. Info: , 5, , ; ; 3, CALsub; . 0, 1, 0

	Signal 1 UV 250-265							Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30 65	4159	104.9000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
HMX	34.66	3754	91.1000<	100	-9%	Acceptable					100	-100%	Fails		(±15)	45
RDX	25 13	4283	100 6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Picric ACID				200	-100%	Fails					200	-100%	Fails		(±15)	
1,3,5-Trinitrobenzene	21 50	6847	102.2000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19 16	8905	101 1000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	40 39	8996	103 4000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	16 46	4129	104 3000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	32 52	7906	97.7300<	100	-2%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29.04	6874	102 7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28 71	7546	101 6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26 77	5040	100 7000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinitrotoluene	25 95	8071	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	22 34	5089	210 9000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
3-Nitrotoluene	22.86	3157	100 5000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		38 25	5728	101 8000<	100	2%	Acceptable		(±15)	45
PETN				100	-100%	Fails		48 84	10890	105 4000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	24 62	6884	102.6000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails		17.78	4429	104 7000	100	5%	Acceptable		(±15)	45

Notes
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

Printed: 7/11/2009 5:43 PM

2324MW 04MW

TestAmerica West Sacramento

A-000014.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/9/2009 3:06 Operator: fhk

DataFile: LC10\07082009 B\A-000014.D Vial Num: 20

Instrument ID: LC10

Sample : **LF3H41AC 9187206 G9G030156-1 1X**

Method File: LC10\07082009 B\8330AB.M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1007.3 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LF3H41AC 9187206 G9G030156-1 1X;0,

Misc. Info: :,1007.3,,20;1;WATER sub::0:1,LF3H41AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.032	5816	2.4480<		18.24	0.032	11243	2.5820		0.0000	0.00	
HMX											0.0268	0.10	
RDX	7.88	0.022	11039	2.8140<	- Confirmed on c/v						0.0645	0.10	45
Picric ACID											0.1241	0.99	
1,3,5-Trinitrobenzene	10.39	0.189	2271	0.3055<	- Not confirmed on c/v						0.0308	0.10	45
1,3-Dinitrobenzene											0.0496	0.10	
TETRYL											0.0496	0.10	
Nitrobenzene											0.0496	0.10	
2,4,6-Trinitrotoluene											0.0238	0.10	
4-AM-2,6-DNT											0.0218	0.10	
2-AM-4,6-DNT											0.0993	0.20	
2,6-Dinitrotoluene											0.0496	0.10	
2,4-Dinitrotoluene											0.0496	0.10	
2-Nitrotoluene											0.0715	0.50	
4-Nitrotoluene											0.0715	0.50	
3-Nitrotoluene											0.0616	0.50	
Nitroglycerin											0.3276	0.65	
PETN											0.2978	0.65	
3,5-Dinitroaniline											0.0248	0.99	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4819	2.4480	99	2.4819	2.5820	104	(79-111)

Notes:
M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

TestAmerica West Sacramento

C-000015.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/11/2009 7:59 Operator: fnk
DataFile: LC9.I\07102009A.B\C-000015.D Vial Num: 21
Instrument ID: LC9

Sample: **LF3H41AC 9187206 G9G030156-1 1X**

Method File: LC9.I\07102009A.B\8330CNAB.M
Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	1007.3 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:
Samp. Info: LF3H41AC 9187206 G9G030156-1 1X,0,
Misc. Info: ,,1007.3,,20.1,WATER sub;;0,1;LF3H41AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.74	0.088	5308	2.6583<							0.0000	0.00	45
HMX											0.0268	0.10	
RDX	25.25	0.116	5549	2.5890<	confirmed						0.0645	0.10	45
Picric ACID											0.1241	0.99	
1,3,5-Trinitrobenzene	Not confirmed JBK 7/14/09										0.0308	0.10	
1,3-Dinitrobenzene											0.0496	0.10	
TETRYL											0.0496	0.10	
Nitrobenzene											0.0496	0.10	
2,4,6-Trinitrotoluene											0.0238	0.10	
4-AM-2,6-DNT	29.18	0.136	110	0.0326<							0.0218	0.10	45
2-AM-4,6-DNT											0.0993	0.20	
2,6-Dinitrotoluene											0.0496	0.10	
2,4-Dinitrotoluene											0.0496	0.10	
2-Nitrotoluene											0.0715	0.49	
4-Nitrotoluene											0.0715	0.49	
3-Nitrotoluene											0.0616	0.49	
Nitroglycerin											0.3276	0.64	
PETN											0.2978	0.64	
3,5-Dinitroaniline											0.0248	0.99	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4819	2.6580	107	2.4819		0	(48-143)

Notes: M = Manually Integrated
D = Operator Disabled Result
O = Over Calibration Range

Signals Differ by More Than 40%
Signals Differ by More Than 50%

23L4MB1 02MB1

TestAmerica West Sacramento

A-000015.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/9/2009 3 57 Operator: fhk

DataFile: LC10 B\07082009 B\A-000015 D Vial Num: 21

Instrument ID: LC10

Sample : **LF3H51AC 9187206 G9G030156-2 1X**

Method File: LC10 B\07082009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	996.15 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LF3H51AC 9187206 G9G030156-2 1X,0,

Misc. Info: ;996 15;;20,1,WATER sub,,0 1;LF3H51AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	0.022	5996	2.5520<		18.23	0.022	11570	2.6870		0.0000	0.00	
HMX	5.30	0.005	23018	3.8250<	= 7 confirmed on cv						0.0271	0.10	45
RDX	7.87	0.018	74461	19.1900<							0.0653	0.10	45
Picric ACID											0 1255	1 00	
1,3,5-Trinitrobenzene	10.37	0.168	2549	0.3467<	— Not confirmed on cv ND						0.0311	0.10	45
1,3-Dinitrobenzene											0.0502	0 10	
TETRYL											0 0502	0.10	
Nitrobenzene											0 0502	0.10	
2,4,6-Trinitrotoluene											0.0241	0 10	
4-AM-2,6-DNT											0.0221	0 10	
2-AM-4 6-DNT											0 1004	0.20	
2,6-Dinitrotoluene											0 0502	0.10	
2,4-Dinitrotoluene											0 0502	0 10	
2-Nitrotoluene											0 0723	0 50	
4-Nitrotoluene											0 0723	0 50	
3-Nitrotoluene											0 0622	0.50	
Nitroglycerin											0 3313	0 65	
PETN											0 3012	0.65	
3,5 Dinitroaniline											0 0251	1 00	

7/14/09

Surrogates:	Spiked	Recovered	%Rec		Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5097	2.5520	102		2.5097	2.6870	107	(79-111)

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

TestAmerica West Sacramento

C-000016.D

Chromatography Summary

Method 8330 Target Analyte Results

Injection Date: 7/11/2009 9:01 Operator: fhk

DataFile: LC9 I\07102009A B\C-000016 D Vial Num: 22

Instrument ID: LC9

Sample: **LF3H51AC 9187206 G9G030156-2 1X**

Method File: LC9.I\07102009A B\8330CNAB.M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4 20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	20 mL	996.15 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LF3H51AC 9187206 G9G030156-2 1X,0,

Misc. Info: ,,996.15;;20,1,WATER sub,;0;1;LF3H51AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.72	0.070	5563	2.8170<							0.0000	0.00	45
HMX	34.70	0.046	6845	3.3350<							0.0271	0.10	45
RDX	25.24	0.104	37128	17.5200<							0.0653	0.10	45
Picric ACID											0.1255	1 01	
1,3,5-Trinitrobenzene											0 0311	0.10	
1,3-Dinitrobenzene											0 0502	0 10	
TETRYL											0 0502	0.10	
Nitrobenzene											0.0502	0.10	
2,4,6-Trinitrotoluene											0 0241	0 10	
4-AM-2,6-DNT	29 10	0.063	107	0.0321<							0 0221	0 10	45
2-AM-4,6-DNT											0 1004	0 20	
2,6-Dinitrotoluene											0 0502	0.10	
2,4-Dinitrotoluene											0 0502	0.10	
2-Nitrotoluene											0 0723	0 50	
4-Nitrotoluene											0 0723	0 50	
3-Nitrotoluene											0 0622	0.50	
Nitroglycerin											0 3313	0 66	
PETN											0.3012	0 66	
3,5 Dinitroaniline											0 0251	1 01	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5097	2.8170	112	2.5097		0	(48-143)

Notes: M = Manually Integrated — Signals Differ by More Than 40%

D = Operator Disabled Result — Signals Differ by More Than 50%

O = Over Calibration Range

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TestAmerica West Sacramento

A-000023.D

Chromatography Summary

Injection Date: 7/11/2009 6 11 Operator: fhk

DataFile: LC10 B\07102009.B\A-000023 D Vial Num: 28

Method 8330 Target Analyte Results

Instrument ID: LC10

Sample: **LF3H61AC 9187206 G9G030156-3 5X**

Method File: LC10 B\07102009 B\8330AB.M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
5X	20 mL	1005.3 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LF3H61AC 9187206 G9G030156-3 5X,0,

Misc. Info: .;1005.3,;20;1;WATER sub,;0.5

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.34	0.066	1202	2.5350<		18.34	0.069	2416	2.7800		0.0000	0.00	
✓ HMX	5.31	0.016	5180	4.2650<							0.1343	0.50	45
✓ RDX	7.93	0.062	65192	83.2500<							0.3233	0.50	45
Picric ACID											0 6217	4.97	
1,3,5-Trinitrobenzene											0 1542	0.50	
1,3-Dinitrobenzene											0 2487	0.50	
TETRYL											0 2487	0.50	
Nitrobenzene											0 2487	0 50	
2,4,6-Trinitrotoluene											0 1194	0 50	
4 AM-2,6-DNT											0 1094	0 50	
2-AM-4,6-DNT											0 4974	0 99	
2,6-Dinitrotoluene											0 2487	0.50	
✓ 2,4-Dinitrotoluene	21.17	0.042	308	0.3578<							0 2487	0 50	45
2-Nitrotoluene											0 3581	2 49	
4-Nitrotoluene											0 3581	2 49	
3-Nitrotoluene											0 3084	2.49	
Nitroglycerin											1 6413	3 23	
PETN											1 4921	3.23	
3,5-Dinitroaniline											0 1243	4.97	

continued on CV

7/14/09

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4868	2.5350	102	2.4868	2.7800	112	(79-111)

Notes: M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/14/2009 2:54 PM

TestAmerica West Sacramento

C-000017.D

Chromatography Summary

Injection Date: 7/11/2009 10 03 Operator: thk

DataFile: LC9 I\07102009A B\C-000017 D Vial Num: 23

Method 8330 Target Analyte Results

Instrument ID: LC9

Sample : **LF3H61AC 9187206 G9G030156-3 5x 5X**

Method File: LC9 I\07102009A.B\8330CNAB M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4:20

Dilution Factor	Extract Volume	Sample Volume	Sample Weight
5X	20 mL	1005.3 mL	0 g

Matrix: WATER SubList: WATER sub SpikeList:

Samp. Info: LF3H61AC 9187206 G9G030156-3 5x 5X;0;

Misc. Info: ,,1005 3,,20,1,WATER sub;,0,5,LF3H61AC

	Signal 1 UV 250-265					Signal 2 UV 358-205							
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.69	0.036	1177	2.9520<							0.0000	0.00	45
HMX	34.70	0.045	1480	3.5720<							0.1343	0.49	45
RDX	25.20	0.068	31840	74.4200<							0.3233	0.49	45
Picric ACID											0 6217	4 95	
1,3,5-Trinitrobenzene											0 1542	0 49	
1,3-Dinitrobenzene	19.29	0.131	544	0.6145<							0.2487	0.49	45
TETRYL											0 2487	0 49	
Nitrobenzene											0 2487	0 49	
2,4,6 Trinitrotoluene											0 1194	0 49	
4-AM-2,6-DNT											0.1094	0.49	
2-AM-4,6-DNT											0 4974	0 99	
2,6-Dinitrotoluene											0.2487	0 49	
2,4-Dinitrotoluene	25.95	0.003	348	0 4359<							0 2487	0 49	45
2-Nitrotoluene											0.3581	2.47	
4-Nitrotoluene											0.3581	2 47	
3-Nitrotoluene											0 3084	2 47	
Nitroglycerin											1.6413	3 22	
PETN											1.4921	3.22	
3,5-Dinitroaniline											0 1243	4 95	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4868	2.9520	119	2.4868		0	(48-143)

Notes M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

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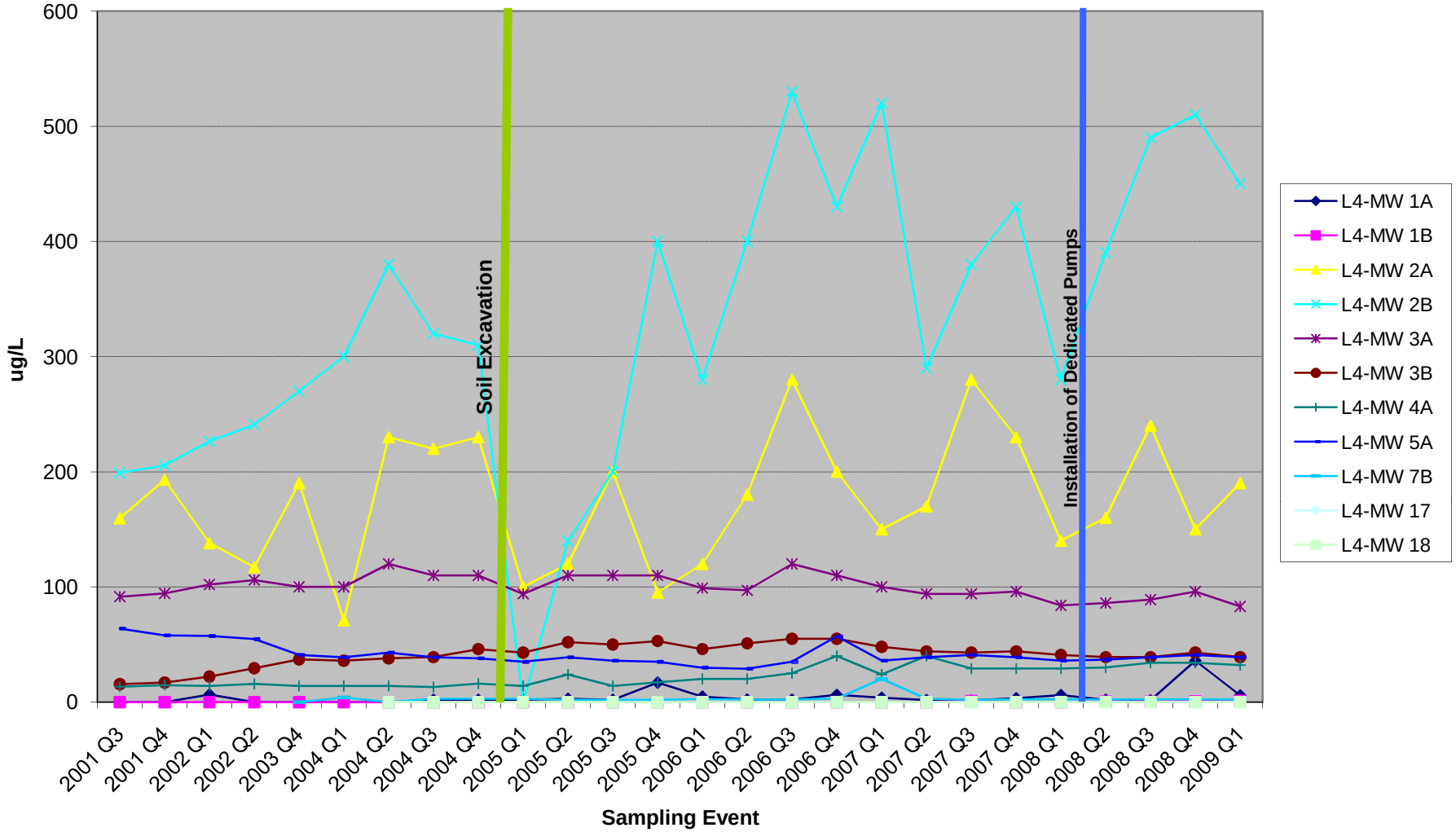
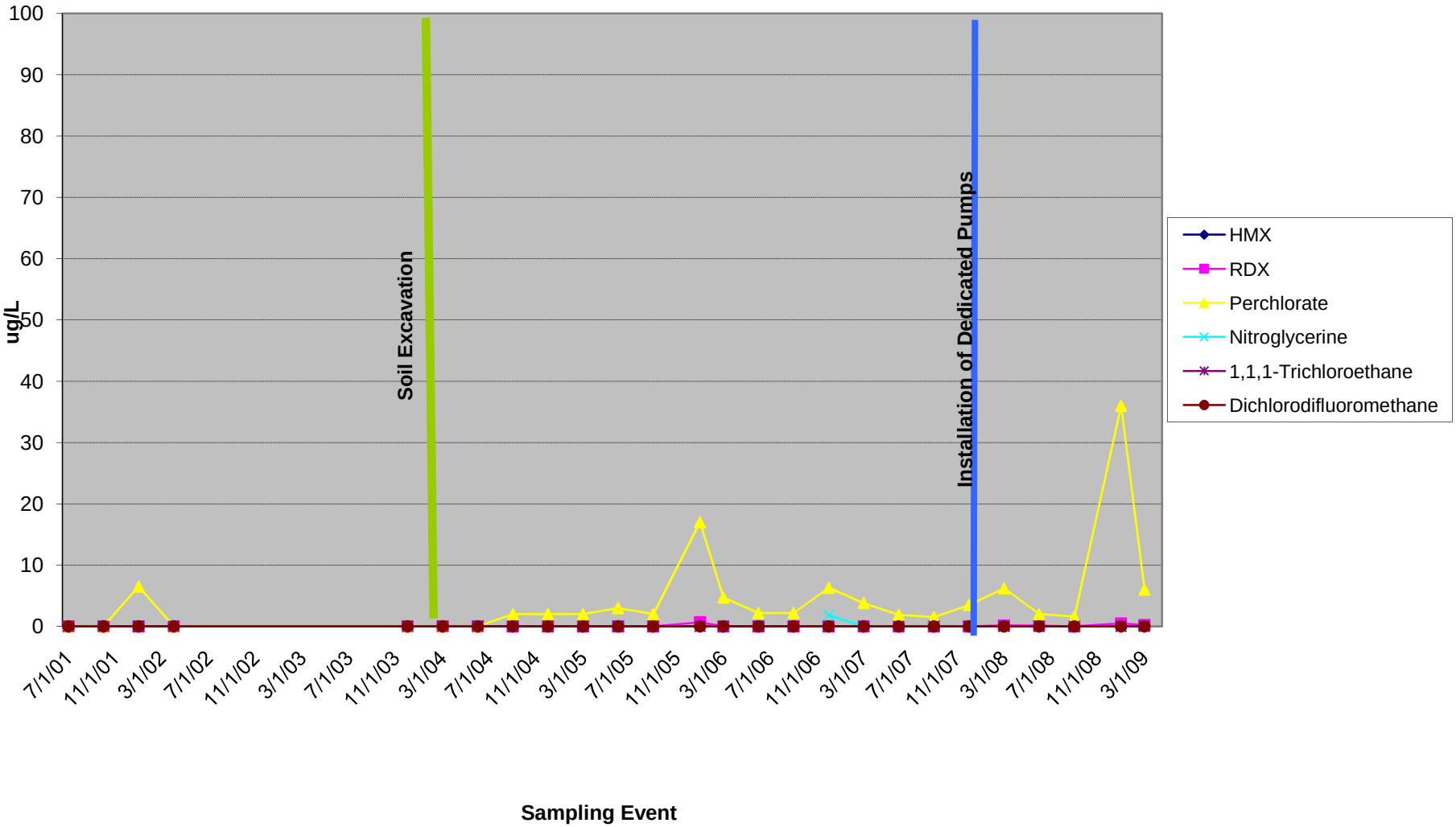
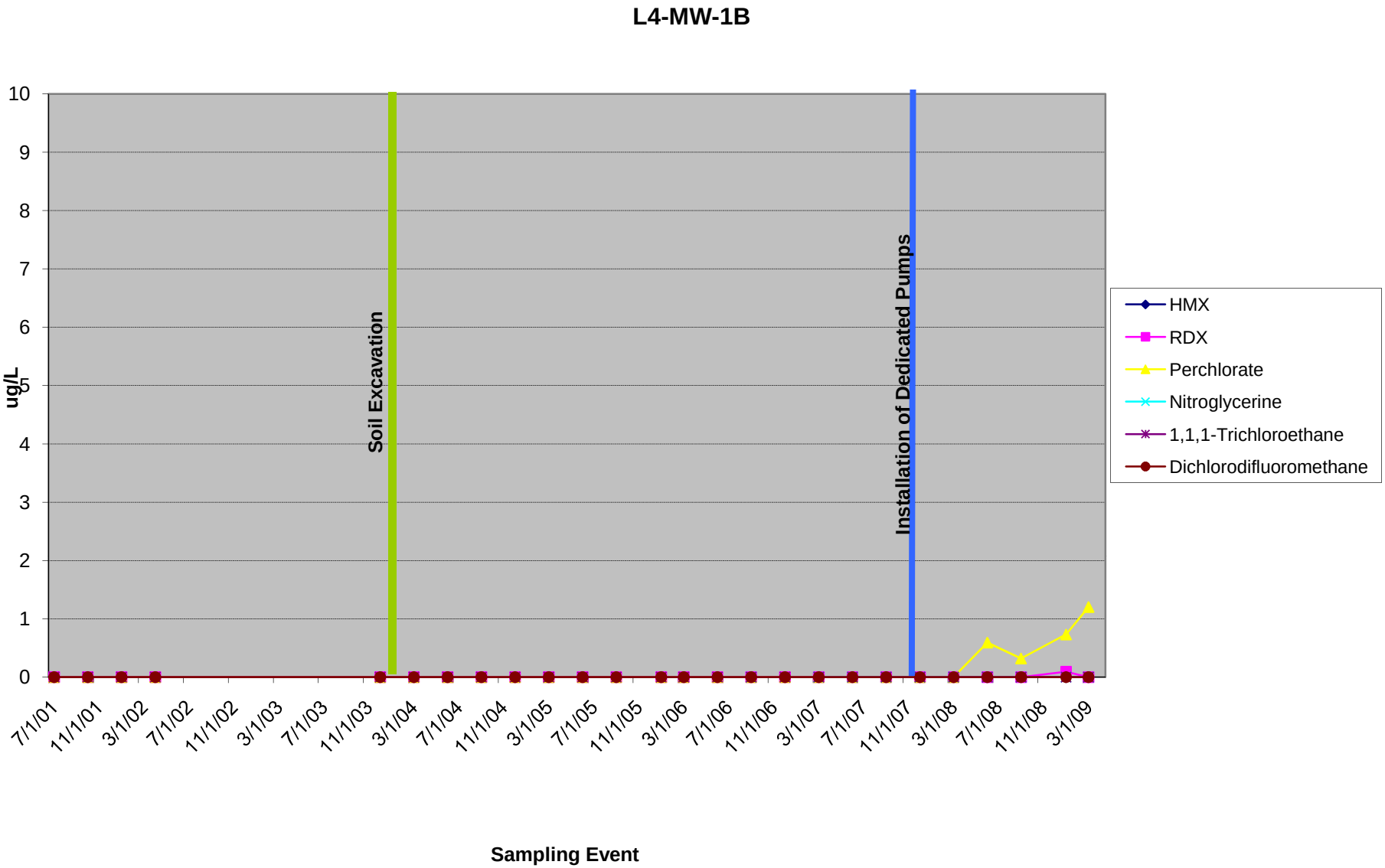
Landfill 4 Perchlorate Results

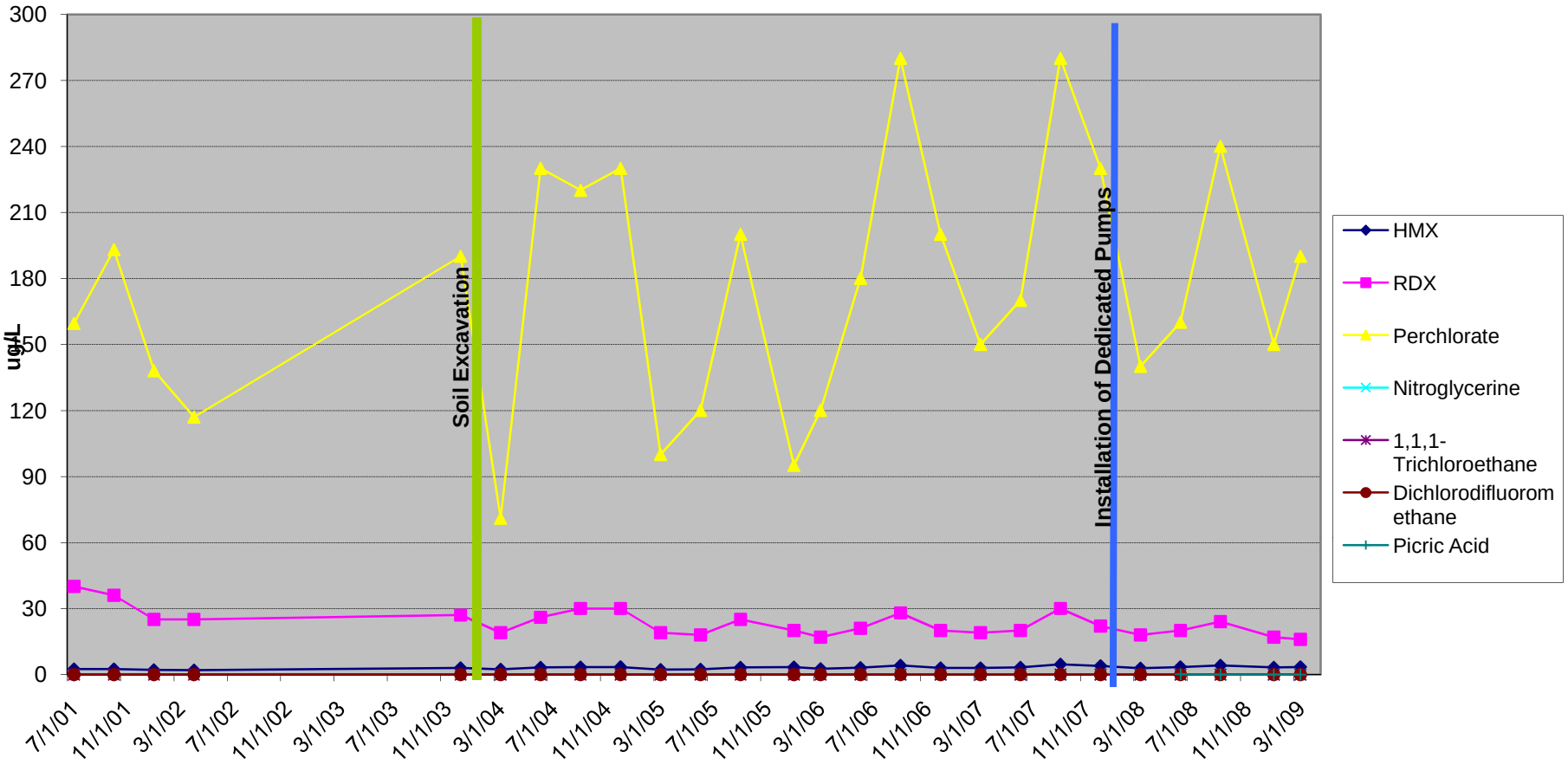


L4-MW-1A


100
90
80
70
60
50
40
30
20
10
0
ug/L
Soil Excavation
Installation of Dedicated Pumps
HMX
RDX
Perchlorate
Nitroglycerine
1,1,1-Trichloroethane
Dichlorodifluoromethane
7/1/01
11/1/01
3/1/02
7/1/02
11/1/02
3/1/03
7/1/03
11/1/03
3/1/04
7/1/04
11/1/04
3/1/05
7/1/05
11/1/05
3/1/06
7/1/06
11/1/06
3/1/07
7/1/07
11/1/07
3/1/08
7/1/08
11/1/08
3/1/09
Sampling Event

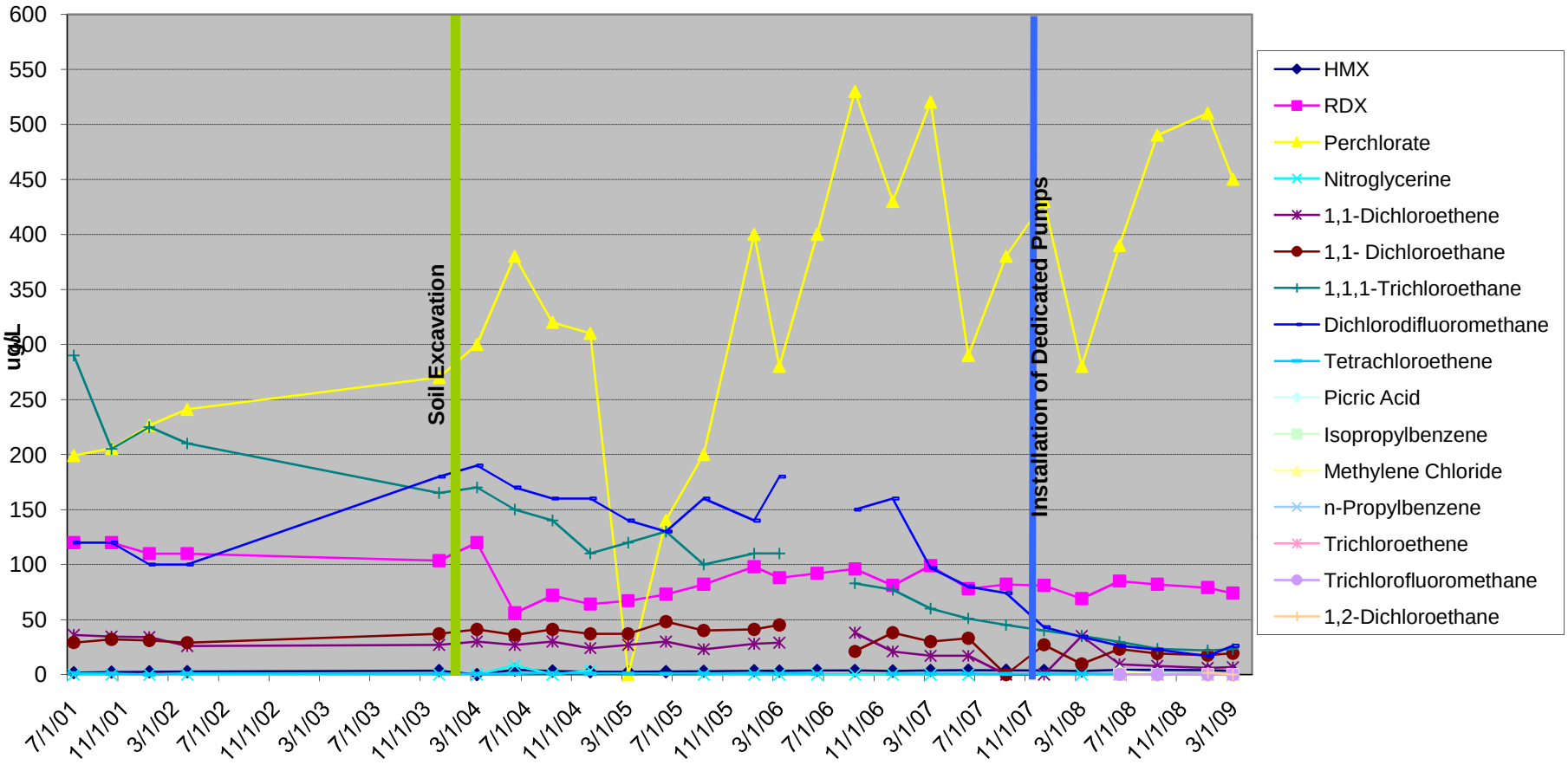

L4-MW-1B
ug/L
10
9
8
7
6
5
4
3
2
1
0
Soil Excavation
Installation of Dedicated Pumps
7/1/01
11/1/01
3/1/02
7/1/02
11/1/02
3/1/03
7/1/03
11/1/03
3/1/04
7/1/04
11/1/04
3/1/05
7/1/05
11/1/05
3/1/06
7/1/06
11/1/06
3/1/07
7/1/07
11/1/07
3/1/08
7/1/08
11/1/08
3/1/09
Sampling Event
HMX
RDX
Perchlorate
Nitroglycerine
1,1,1-Trichloroethane
Dichlorodifluoromethane

L4-MW-2A

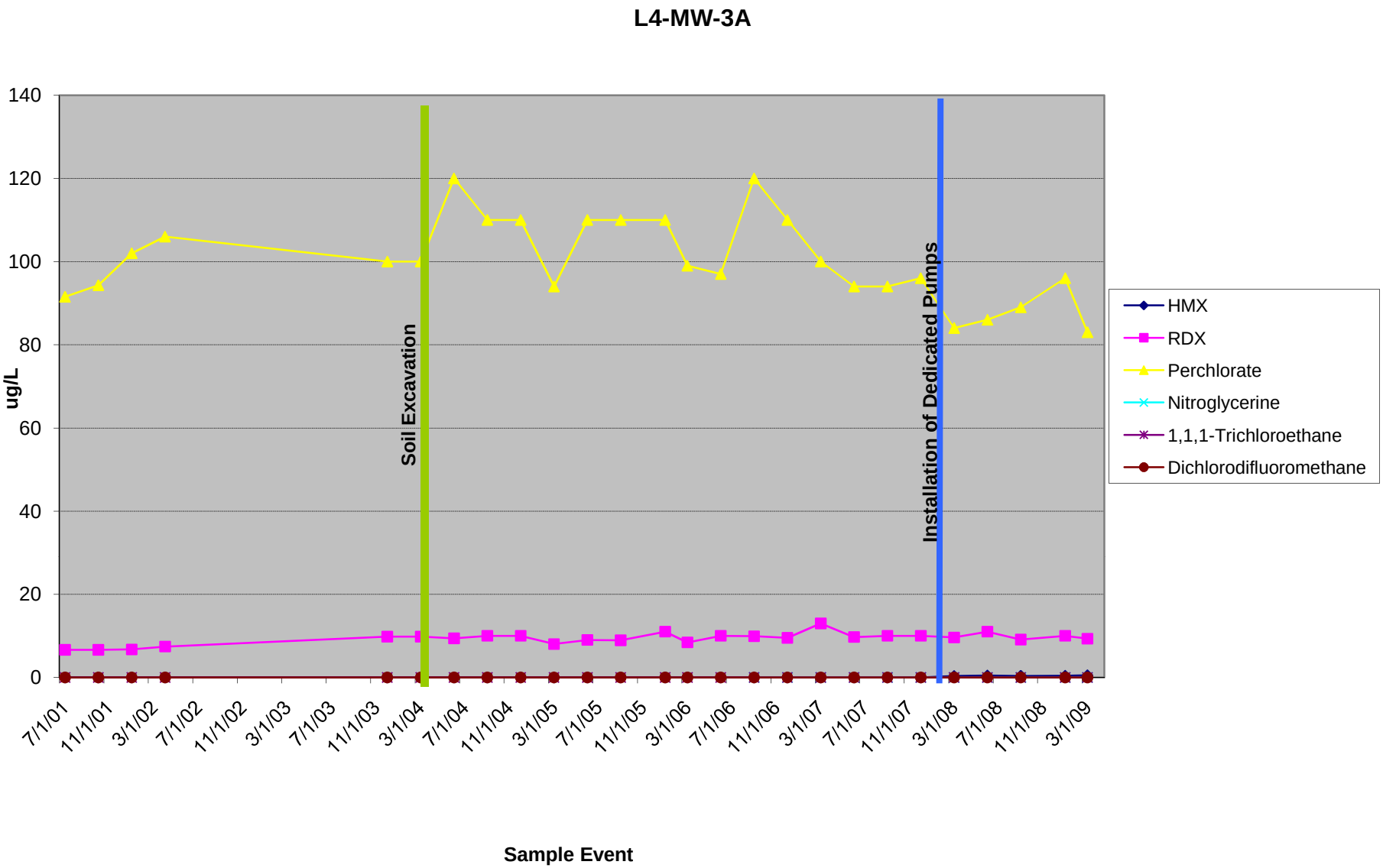


Sampling Event

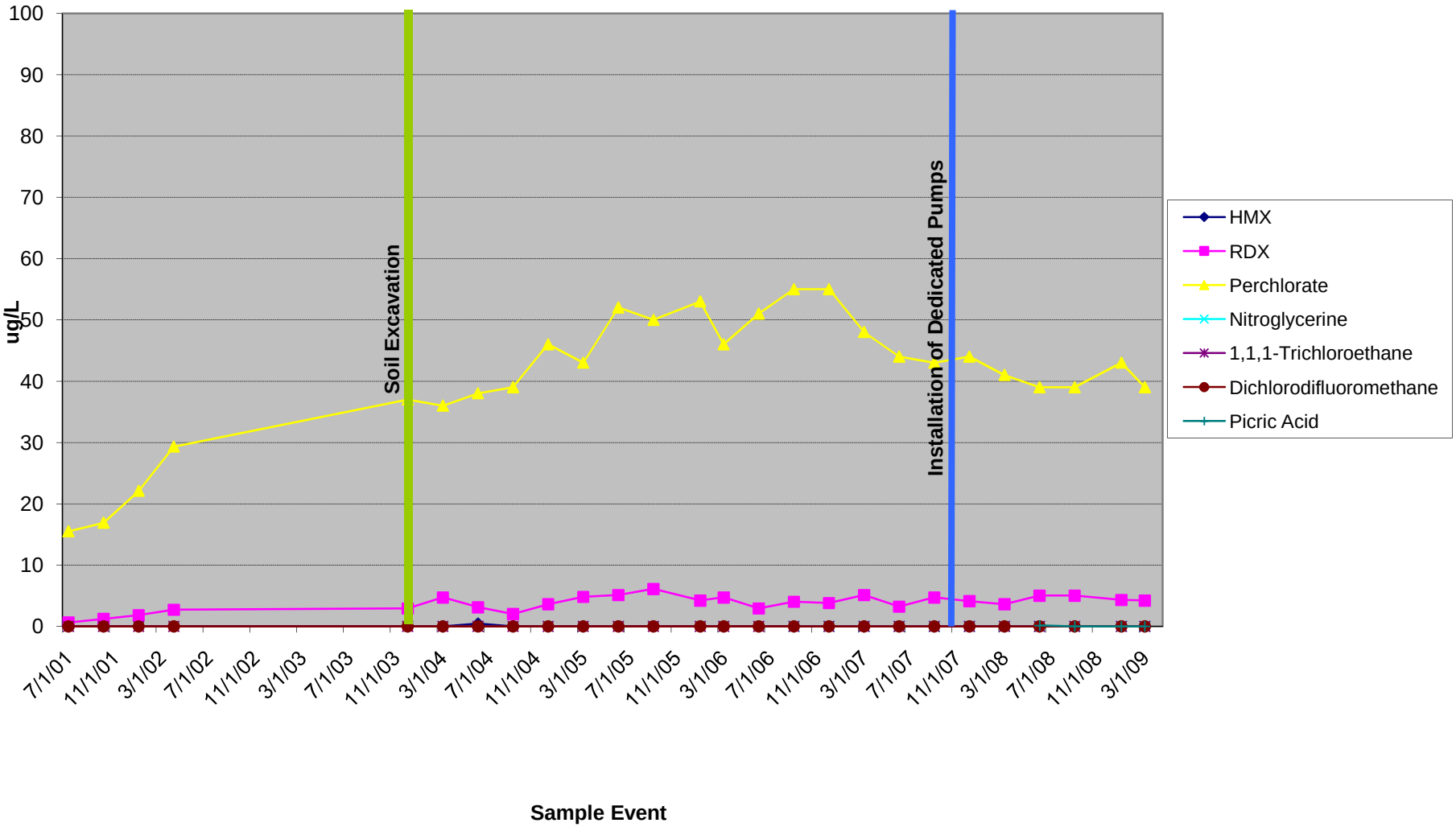
L4-MW-2B



Sample Event

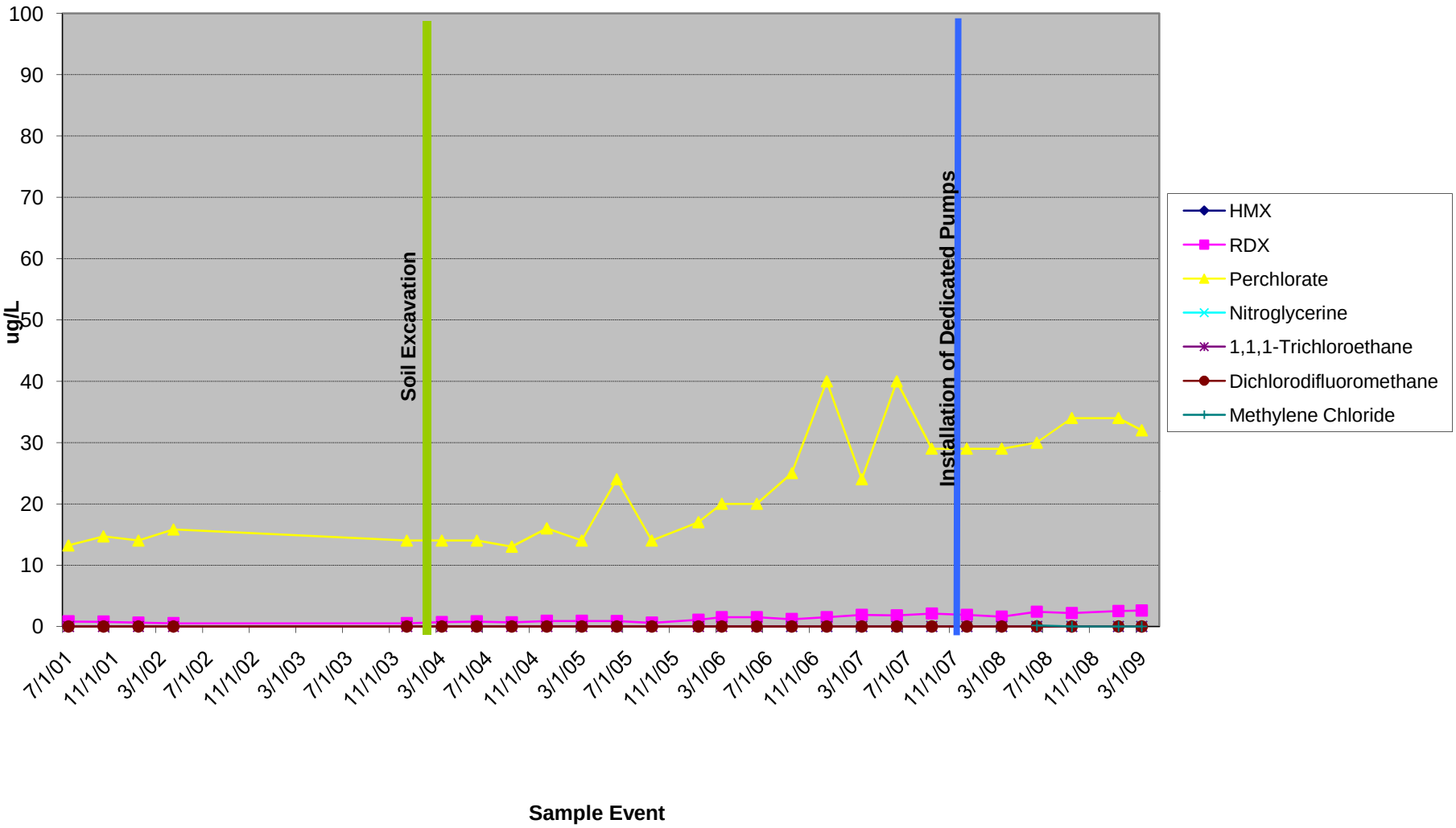

L4-MW-3A
140
120
100
80
60
40
20
0
ug/L
Soil Excavation
Installation of Dedicated Pumps
HMX
RDX
Perchlorate
Nitroglycerine
1,1,1-Trichloroethane
Dichlorodifluoromethane
7/1/01
11/1/01
3/1/02
7/1/02
11/1/02
3/1/03
7/1/03
11/1/03
3/1/04
7/1/04
11/1/04
3/1/05
7/1/05
11/1/05
3/1/06
7/1/06
11/1/06
3/1/07
7/1/07
11/1/07
3/1/08
7/1/08
11/1/08
3/1/09
Sample Event

L4-MW-3B

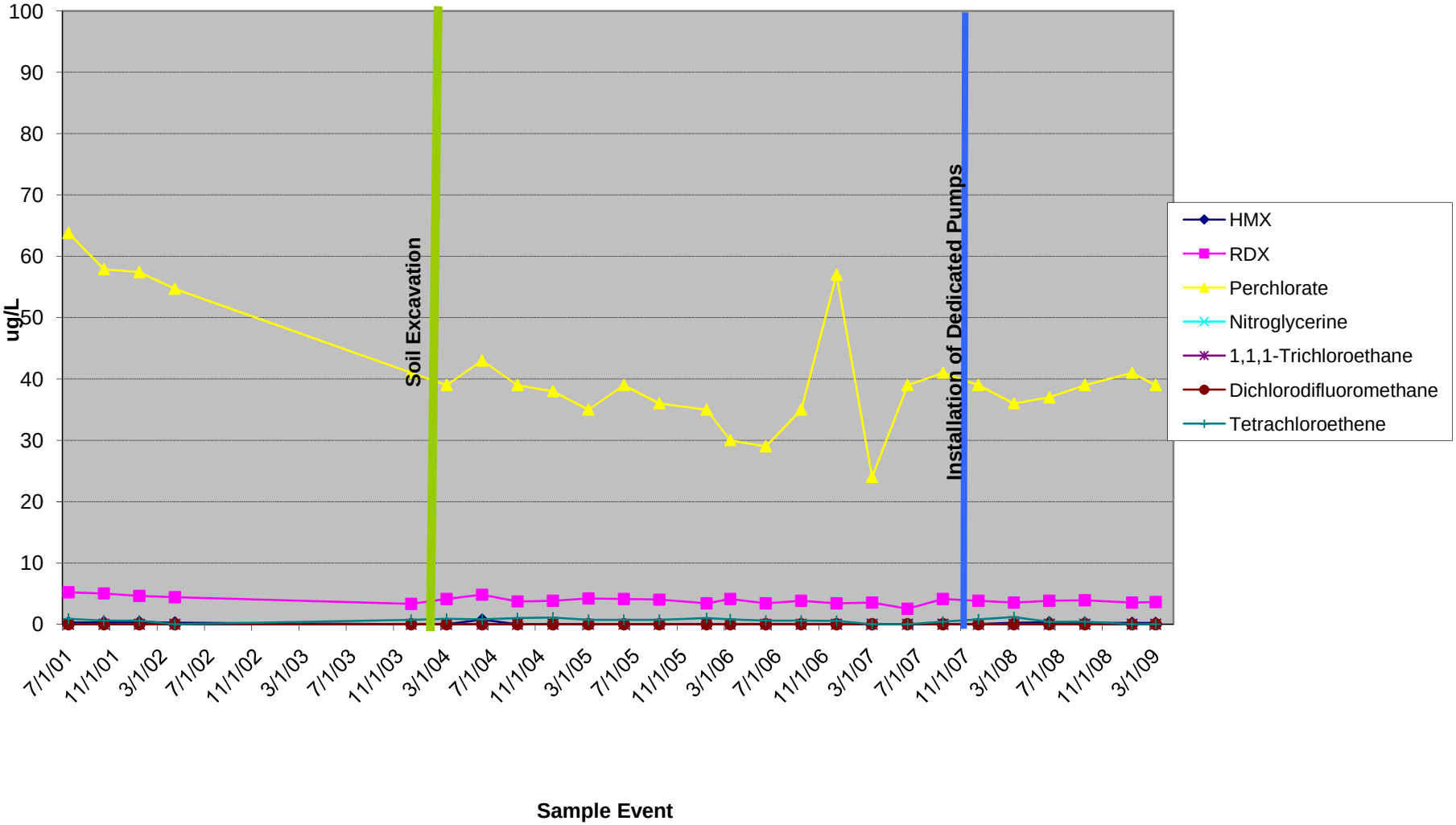


Sample Event

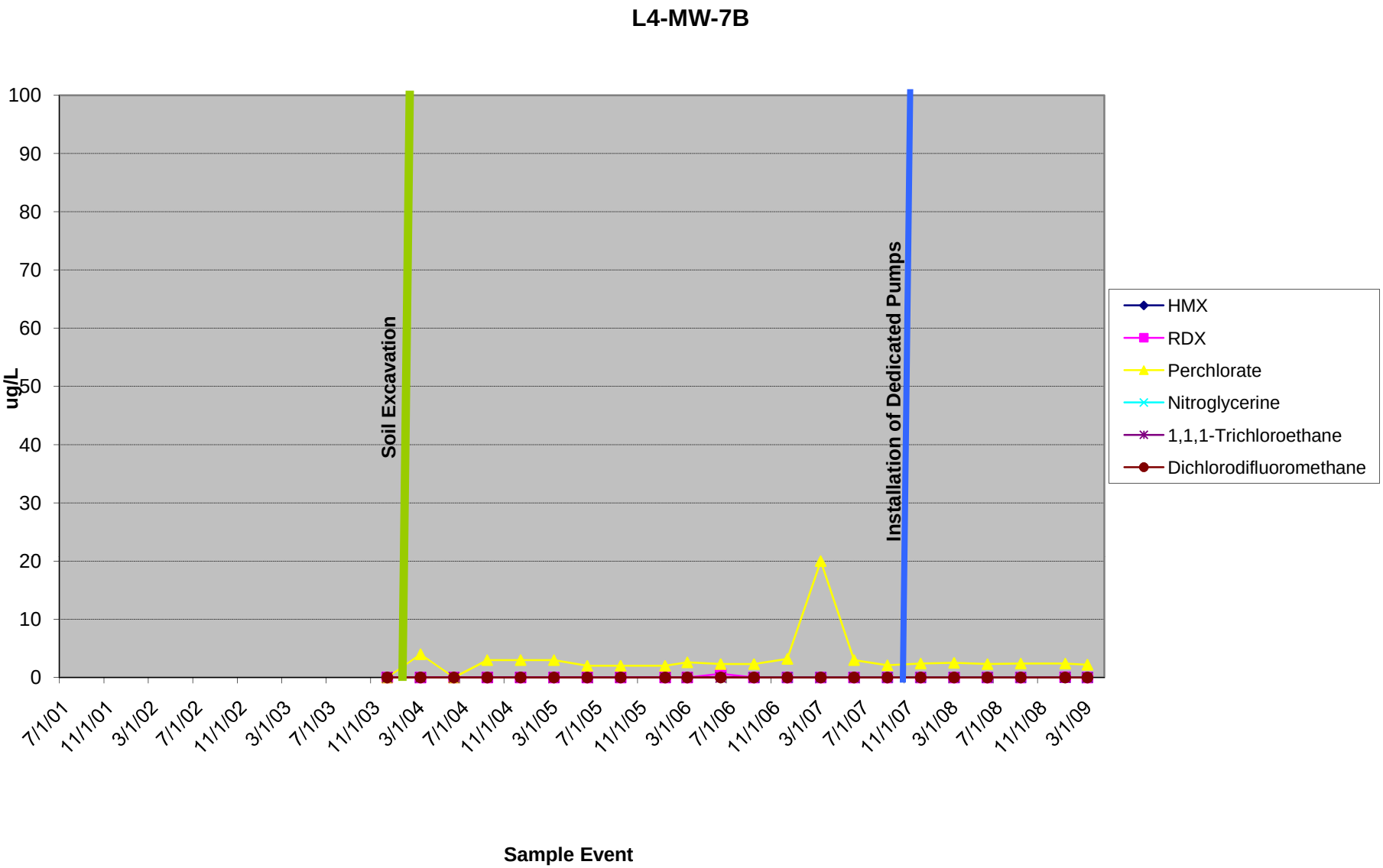
L4-MW-4A

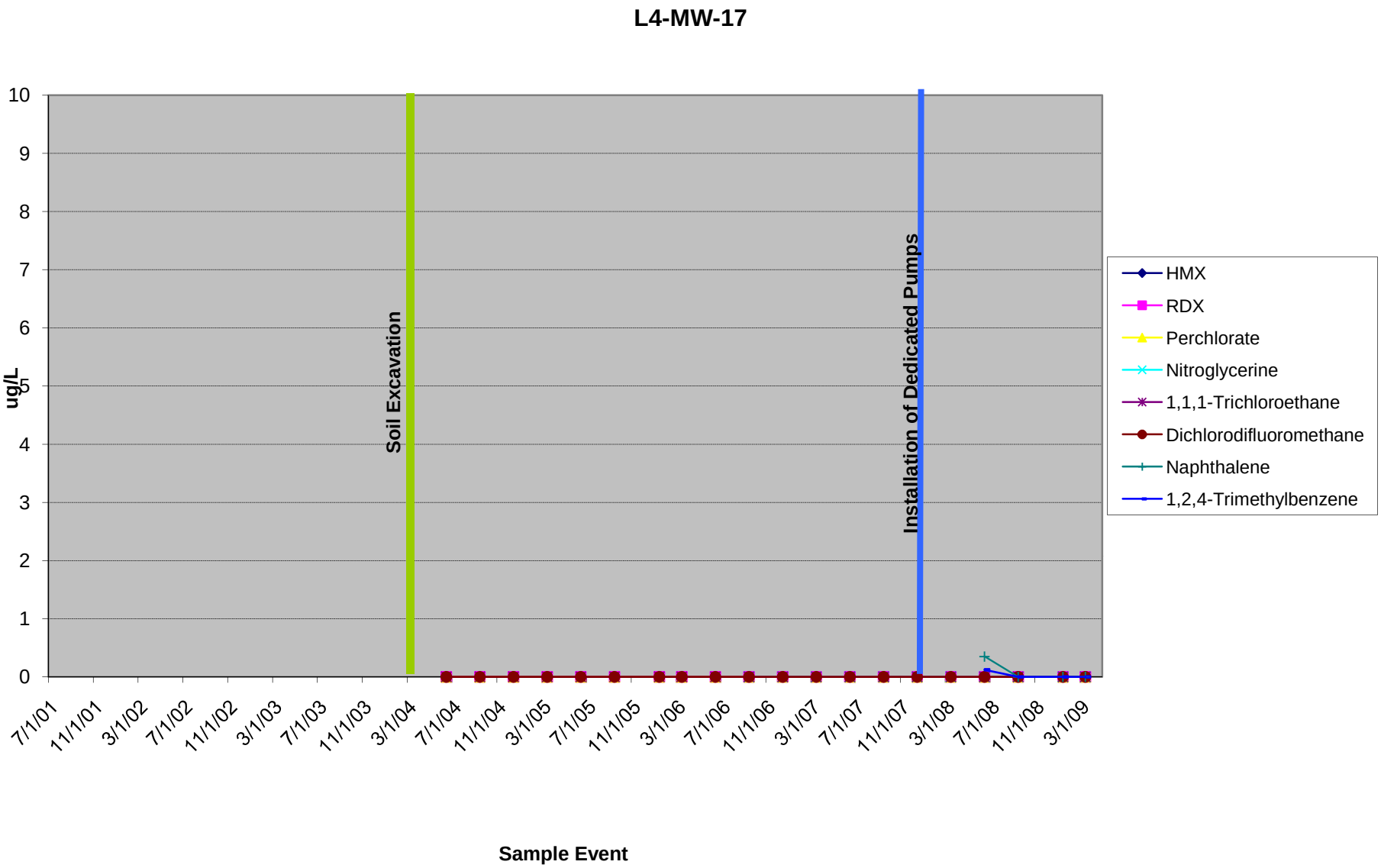

100
90
80
70
60
50
40
30
20
10
0
ug/L
Soil Excavation
Installation of Dedicated Pumps
HMX
RDX
Perchlorate
Nitroglycerine
1,1,1-Trichloroethane
Dichlorodifluoromethane
Methylene Chloride
7/1/01
11/1/01
3/1/02
7/1/02
11/1/02
3/1/03
7/1/03
11/1/03
3/1/04
7/1/04
11/1/04
3/1/05
7/1/05
11/1/05
3/1/06
7/1/06
11/1/06
3/1/07
7/1/07
11/1/07
3/1/08
7/1/08
11/1/08
3/1/09
Sample Event

L4-MW-5A

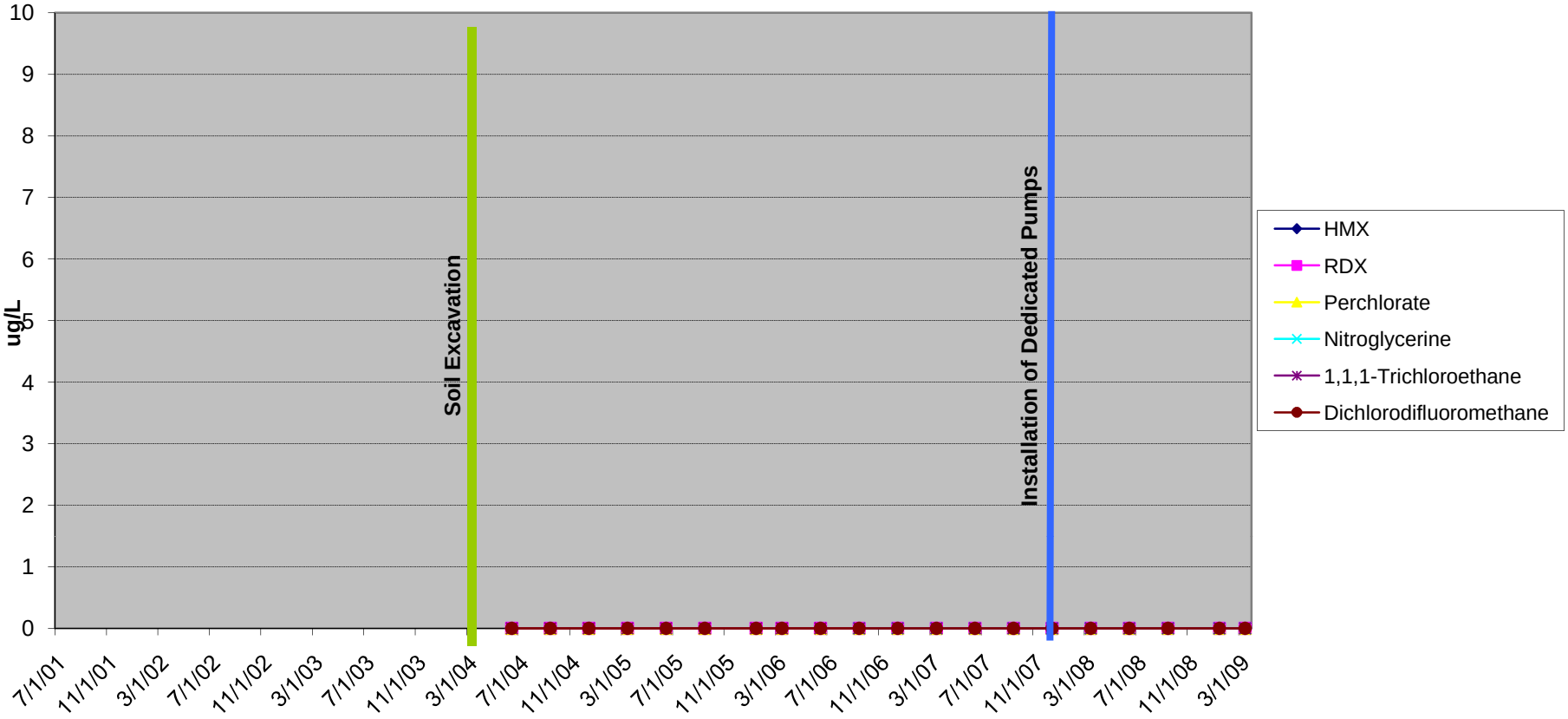


Sample Event


L4-MW-7B
ug/L
100
90
80
70
60
50
40
30
20
10
0
Soil Excavation
Installation of Dedicated Pumps
7/1/01
11/1/01
3/1/02
7/1/02
11/1/02
3/1/03
7/1/03
11/1/03
3/1/04
7/1/04
11/1/04
3/1/05
7/1/05
11/1/05
3/1/06
7/1/06
11/1/06
3/1/07
7/1/07
11/1/07
3/1/08
7/1/08
11/1/08
3/1/09
Sample Event
HMX
RDX
Perchlorate
Nitroglycerine
1,1,1-Trichloroethane
Dichlorodifluoromethane


L4-MW-17
ug/L
10
9
8
7
6
5
4
3
2
1
0
Soil Excavation
Installation of Dedicated Pumps
7/1/01
11/1/01
3/1/02
7/1/02
11/1/02
3/1/03
7/1/03
11/1/03
3/1/04
7/1/04
11/1/04
3/1/05
7/1/05
11/1/05
3/1/06
7/1/06
11/1/06
3/1/07
7/1/07
11/1/07
3/1/08
7/1/08
11/1/08
3/1/09
Sample Event
HMX
RDX
Perchlorate
Nitroglycerine
1,1,1-Trichloroethane
Dichlorodifluoromethane
Naphthalene
1,2,4-Trimethylbenzene

L4-MW-18



Sample Event