

Final
After Action Report for
Bunker and Mitchell Roads and Alexander Avenue
Soil Investigation
Marin County, California

August 2012

Project No. 2012-031

Prepared for:

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Soil Investigation
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*Submitted by:
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Executive Summary

National Park Service (NPS) is renovating several roads and parking areas in the Marin Headlands, Marin County, California. In May 2012, NPS contracted Engineering/Remediation Resources Group, Inc. (ERRG) to evaluate reuse or disposal options for soil during road improvement activities at Bunker and Mitchell Roads and Alexander Avenue (NPS, 2012). As part of the project, ERRG performed the following tasks:

- Collected soil samples for laboratory analysis to evaluate the presence and extent of total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene, and xylenes (BTEX); and metals in soil at Fort Cronkhite and Surfers Overflow parking lots, Fort Cronkhite Annex, Smith Road, Bunker Road near the historic rifle range, stockpiles at Rifle Range Road, and Alexander Avenue.
- Collected drainage waste samples along Bunker and Mitchell Roads to evaluate TPH, BTEX, and metals for waste characterization purposes.
- Evaluated soil lithology at Fort Cronkhite and Surfers Overflow parking lots, Fort Cronkhite Annex, Smith Road, Bunker Road near the historic rifle range, and Alexander Avenue.

ERRG collected soil samples in accordance with the sampling frequency outlined in the Department of Toxic Substances Control's (DTSC) "Information Advisory, Clean Imported Fill Material" (DTSC, 2001). Sample results were used to evaluate whether soil could be reused during project renovations or would require disposal at an off-site facility. During sampling activities, several petroleum stains were observed at the Fort Cronkhite Annex. As a result, additional soil samples were collected from the largest stain (approximately 7 feet in diameter) at several depth intervals to evaluate the nature and extent of contaminated soil. Soil samples were sent to an off-site laboratory for analysis of TPH, BTEX, and metals.

Sample results were compared with The Presidio Trust's (Presidio) preliminary remediation goals (PRGs), for both ecological special-status species and residential use, and the Presidio's background concentrations (metals only) (Presidio, 2002). To select the appropriate Presidio background concentrations for comparison, ERRG evaluated the soil lithology at the sites. The soil lithology consisted of a reddish-brown silty crushed chert from 0.5 feet to 1.5 feet below ground surface, underlain by a light to dark brown homogeneous clay. Composite sub-samples were collected from both soil types to represent soil designated for excavation and reuse during road improvement activities. The Presidio has not established background concentrations for metals in clay soil; therefore, a direct comparison of the data with Presidio background concentrations was not possible.

Comparison results indicated the following for TPH, BTEX, and metals:

- **TPH:** Concentrations in several soil samples from Fort Cronkhite Annex (FCA-SS-02, FCA-SS-09, FCA-SS-10, and FCA-SS-11), Smith Road (SR-SS-08, SR-SS-12 and SR-SS-13), and two stockpiles at Rifle Range Road (RR-SS-01 and RR-SS-02) exceeded the ecological PRGs but were less than the residential PRGs for TPH. TPH concentrations in two samples collected from TPH-stained soil at Fort Cronkhite Annex exceeded both ecological PRGs and residential PRGs.
- **BTEX:** Benzene, ethylbenzene, and xylenes concentrations in soil samples were less than both ecological and residential PRGs in all soil samples. Toluene concentrations from two samples from Fort Cronkhite Annex exceeded the ecological PRGs but were less than the residential PRGs. All other BTEX concentrations in soil were less than ecological PRGs.
- **Metals:** Several metals, including chromium, thallium, vanadium, and zinc, were present in several soil samples at concentrations exceeding the ecological PRGs and Presidio background concentrations for chert/shale. One detection of mercury at Fort Cronkhite Annex (FCA-SS-09) exceeded the ecological PRG and Presidio background concentration for chert. However, all metals concentrations, except for arsenic, in soil were less than the Presidio's PRGs for residential use. Arsenic concentrations were further compared with the regional background concentration for soil of 11 mg/kg (Duverge, 2011). Comparison results indicated all arsenic concentrations were less than the established regional background concentration.

Based on the results, TPH-stained soil at the Fort Cronkhite Annex contains TPH at concentrations exceeding residential PRGs. As a result, a minimum of 3.5 cubic yards of soil to a depth of 2.5 feet below ground surface should be removed and disposed of at an off-site facility. However, because equipment and materials were present in this area during sampling, the exact volume of contaminated soil is unknown. If additional staining is observed, then spot removal of TPH-contaminated soil may be necessary prior to excavation and regrading activities at Fort Cronkhite Annex.

All other TPH, BTEX, and metals concentrations in soil samples were less than residential PRGs or regional background concentrations (arsenic), thus soil from areas other than TPH-stained areas at Fort Cronkhite Annex are considered acceptable for reuse during road improvements in areas where sensitive ecological species will not be affected.

TPH concentrations in several soil samples from Fort Cronkhite Annex, Smith Road, and two stockpiles at Rifle Range Road, exceeded the ecological PRGs. Metals were also present in soil (crushed silty chert) at concentrations exceeding the ecological PRGs and Presidio background concentrations for chert/shale. However, metals results for samples collected in clay soil underlying the chert soil could not be compared with background concentrations because few background concentrations have been established for metals in clay soil. Therefore, it is not possible to make a conclusive determination regarding reuse of this soil in areas with ecological sensitivities. However, the possibility exists that metals in clay soil are naturally occurring. NPS further reviewed the data and concluded that the metals present in clay soil are likely naturally occurring, thus soil with metals is acceptable for reuse in ecologically sensitive areas.

Additionally, NPS concluded that only soil with detections of TPH exceeding the ecological PRG (from Fort Cronkhite Annex, Smith Road, and two stockpiles at Rifle Range Road) was not acceptable for unrestricted reuse during road improvement activities. [Appendix C](#) contains memorandum documenting NPS' decision for reusing this soil in ecologically sensitive areas.

Based on the waste characterization results, drainage waste and soil at Smith Road, Fort Cronkhite Annex, and the stockpiles at Rifle Range Road may be disposed of as nonhazardous waste.

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- Appendix C. NPS Soil Reuse Memorandum
- Appendix D. Laboratory Reports

Acronyms and Abbreviations

AAR	After Action Report
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAM 17	California Assessment Manual 17
DRO	diesel-range organics
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
ERRG	Engineering/Remediation Resources Group, Inc.
GRO	gasoline-range organics
LCS	laboratory control samples
LCSD	laboratory control samples duplicates
mg/kg	milligrams per kilogram
MRO	motor-oil range organics
MS	matrix spike
MSD	matrix spike duplicate
NPS	National Park Service
Presidio	The Presidio Trust
PRGs	preliminary remediation goals
QA	quality assurance
QC	quality control
RPD	relative percent differences
STLC	soluble threshold limit concentration
TPH	total petroleum hydrocarbons
WET	waste extraction test

Section 1. Introduction

This After Action Report (AAR) describes investigation activities performed to characterize the potential reuse and disposal of on-site soil during road improvements at the Bunker and Mitchell Roads and Alexander Avenue being performed by the National Park Service (NPS) in the Marin Headlands, Marin County, California. During the investigation, Engineering/Remediation Resources Group, Inc. (ERRG) collected (1) soil samples from the Fort Cronkhite and Surfers Overflow parking lots, Fort Cronkhite Annex, Smith Road, Bunker Road near the historic rifle range, stockpiles at Rifle Range Road and Alexander Avenue, and (2) a representative sample of drainage waste from culverts along Bunker and Mitchell Roads. Samples were analyzed to evaluate the nature and extent of contamination potentially present in soil and for waste characterization purposes to determine whether on-site soil could be reused during road improvements or should be disposed of at an off-site facility. ERRG performed this work as the prime contractor for NPS under Contract No. C8151070149, Task Order No. T8147110900.

1.1. SITE LOCATION AND BACKGROUND

NPS is making improvements to 11 miles of historic roads in the Marin Headlands and Fort Baker. Specific work includes soil excavation and regrading at the Fort Cronkhite and Surfers Overflow parking lots, Fort Cronkhite Annex, Smith Road, Bunker Road near the historic rifle range (Stations 100+00 to 120+00) (NPS, 2012), and Alexander Avenue at Danes Road (Figure 1) and excavation and removal of drainage waste from culverts along Bunker and Mitchell Roads. NPS tasked ERRG with collection of soil and drainage waste samples to evaluate whether NPS could reuse soil during road improvement activities and to characterize drainage waste for eventual disposal.

1.2. OVERVIEW OF WORK

In May and June 2012, ERRG collected soil samples at Fort Cronkhite and Surfers Overflow parking lots, Fort Cronkhite Annex, Smith Road, Bunker Road near the historic rifle range (Stations 100+00 to 120+00), stockpiles at Rifle Range Road, and Alexander Avenue at Danes Road. ERRG also collected waste samples from drainage culverts along Bunker and Mitchell Roads to characterize the waste for future disposal. Samples were analyzed for the following potential site chemicals of concern: total petroleum hydrocarbons (TPH) as diesel-range organics (DRO), motor-oil-range organics (MRO), and gasoline-range-organics (GRO); benzene, toluene, ethylbenzene, and xylenes (BTEX); California Assessment Manual 17 (CAM 17) metals.

1.3. REPORT ORGANIZATION

Following this introduction, the AAR is organized as follows:

- [Section 2](#), Sampling Activities – summarizes work performed.
- [Section 3](#), Investigation Results – summarizes screening criteria and results of soil sampling.
- [Section 4](#), Laboratory Quality Control (QC) and Documentation – summarizes laboratory QC methodology and results.
- [Section 5](#), Conclusions and Recommendations – presents conclusions and recommendations based on the sampling results.
- [Section 6](#), References – lists the documents and guidance used to prepare this AAR.

Figures and tables are presented following [Section 6](#). The following supplemental information is appended to this AAR:

- [Appendix A](#): Photographic Log
- [Appendix B](#): Presidio Remediation Goals
- [Appendix C](#): NPS Soil Reuse Memorandum
- [Appendix D](#): Laboratory Reports

Section 2. Sampling Activities

This section summarizes the sampling activities at the following areas:

- Fort Cronkhite and Surfers Overflow parking lots
- Fort Cronkhite Annex
- Smith Road
- Bunker Road near the historic rifle range
- Stockpiles at Rifle Range Road
- Alexander Avenue
- Bunker and Mitchell Roads (drainage samples only)

Sampling activities included mobilization and site preparation, sample collection, and sample analysis. Photographs are presented in [Appendix A](#).

2.1. MOBILIZATION AND SITE PREPARATION

Equipment and materials were mobilized to each site before the start of sampling activities. Site preparation activities included establishing a temporary staging area and eyewash and first-aid station at each site, delineating work zones, designating safe walking routes, and identifying sampling locations.

2.2. SAMPLE COLLECTION

The frequency of sample collection at each site was based on the estimated excavation volumes in the 100 percent final drawings for the Bunker and Mitchell Roads and Alexander Avenue Project ([NPS, 2012](#)) and the recommended sampling frequency outlined in the Department of Toxic Substances Control's (DTSC) "Information Advisory, Clean Imported Fill Material" ([DTSC, 2001](#)).

The following samples were collected from each site to evaluate soil reuse:

- Fort Cronkhite Parking Lot and Surfer Overflow Lot – 13 four-point composite soil samples and 13 discrete soil samples. In addition, one four-point composite sample and one discrete sample were collected from the parking lot chert (top 0.5 foot) ([Figure 2](#)).
- Fort Cronkhite Annex – 11 four-point composite soil samples and 11 discrete soil samples ([Figure 3](#)).
- Smith Road – 13 four-point composite soil samples and 13 discrete soil samples ([Figure 4](#)).

- Bunker Road near the historic rifle range – two four-point composite soil samples and two discrete soil samples (Figure 5).
- Alexander Avenue – one four-point composite soil sample one discrete soil sample (Figure 6).
- Bunker and Mitchell Roads (drainage waste only) – one four-point composite soil sample and one discrete soil sample (Figure 7).

During sample collection, three large TPH stains were observed at the Fort Cronkhite Annex in areas not covered by equipment and materials (Photographs A-3 through A-7, Appendix A). The largest visible stain is 6 feet 9 inches in diameter, located in the northwestern quadrant of the annex (Figure 8). At NPS direction, ERRG collected four additional soil samples from the TPH stain at 1.0 foot below ground surface (bgs), 2.0 feet bgs, 2.5 feet bgs, and 3.0 feet bgs to estimate the volume of contaminated soil that might require removal and disposal prior to road improvement activities.

All soil samples were collected using a decontaminated hand auger and disposal trowel and to a maximum depth of 2.5 feet bgs. A backhoe was used to excavate soil for the deeper samples collected at Fort Cronkhite and Surfers Overflow parking lots because the highly compacted soil made hand auguring impossible. Drainage waste samples were collected directly from four culverts designated for cleaning during road improvement activities using a disposable trowel (Figure 7).

Soil and drainage waste samples were placed in glass jars and submitted separately for laboratory compositing and analysis. Samples for analysis of TPH-GRO and BTEX were collected at the “A” composite sample location using EnCore samplers. Three EnCores per sample were collected. Soil samples were placed in a chilled cooler maintained at approximately 4°C and submitted to the laboratory for analysis, as discussed in Section 2.4.

2.3. SOIL LITHOLOGY

During sampling, an ERRG project geologist evaluated the soil lithology of each site by observing soil cuttings from borings. The lithology was consistent at all the sites and consisted of reddish-brown silty crushed chert ranging from ground surface to 0.5 to 1.5 feet bgs, underlain by light to dark brown homogeneous clay with trace angular gravel. This organic-rich clay was determined to be native soil because it is consistent with the organic-rich depositional fines that would be expected in Quaternary undifferentiated surficial deposits in the area (U.S. Geological Survey, 2000; U.S. Department of Agriculture, 2012). Fill material was not observed at the sites, and the clayey soil contained angular chert derived from the underlying bedrock. Discrete samples of both soil types were collected from various depths and were composited by the laboratory prior to analysis to simulate reuse conditions (i.e., materials would be mixed together during excavation work for the Bunker and Mitchell Roads and Alexander Avenue improvement project).

2.4. SAMPLE SUBMITTAL AND ANALYSIS

Soil and drainage waste samples were submitted to TestAmerica Laboratory in Pleasanton, California, for analysis of the following analytical groups:

- TPH-GRO and BTEX by U.S. Environmental Protection Agency (EPA) Method 8260B (EPA, 2008)
- TPH-DRO and TPH-MRO by EPA Method 8015B (EPA, 2008)
- CAM-17 metals by EPA Method 6010B (EPA, 2008)

Four-point composite soil and drainage waste samples were composited at the laboratory and analyzed for TPH-DRO and MRO by EPA Method 8015B and CAM-17 metals by EPA Method 6010B (EPA, 2008). Discrete soil and drainage waste samples were collected and analyzed for TPH-GRO and BTEX by EPA Method 8260B (EPA, 2008)

Because organic material may be present in the soil samples, silica gel cleanup was performed prior to analysis of TPH-DRO and TPH-MRO by EPA Method 8015B. The cleanup procedure, EPA Method 3630C (EPA, 2008), involves using silica gel to remove polar organic material from sample extracts, leaving the nonpolar components associated with petroleum. This step clarifies the nonpolar compound resolution, making results for diesel and motor oil more defensible for screening purposes.

Soil sample results to evaluate reuse or disposal were reported on a dry weight basis. TPH staining sample results were reported as totals.

Drainage waste and samples with elevated chromium detections at Fort Cronkhite and Smith Road (Section 3.2) were submitted for the waste extraction test (WET) for waste characterization. The WET simulates the leachability of contaminants in a landfill setting by performing a citric acid extraction for 48 hours, prior to running the metals analysis.

Section 3. Investigation Results

Soil sample results were compared against the following criteria to evaluate the nature and extent of contamination and to characterize the waste for disposal purposes:

- The Presidio Trust (Presidio) preliminary remediation goals (PRGs) for ecological special-status species
- The Presidio PRGs for residential reuse
- The Presidio background concentrations for chert/shale ([Appendix B](#))
- State of California soluble threshold limit concentrations (STLC) (waste characterization only)

In addition to the criteria above, soil lithology was evaluated at each site during sampling activities to select the appropriate Presidio background concentrations to use as screening criteria. Soil lithologies identified at each site included chert soil and clay soil ([Section 2.4](#)), and composite samples included both soil types. Since Presidio background concentrations for metals in clay soil have not been established, a direct comparison of the data with Presidio background concentrations was not possible. In addition, because clay and organic matter have a high capacity to absorb metallic ions, metal concentrations tend to be highest in soil that contain high percentages of clay and organic material ([Naval Facilities Engineering Command, 2002](#)).

[Appendix B](#) provides the Presidio's PRGs and background concentrations. [Appendix C](#) provides an NPS memorandum describing the evaluation of metals in soil for reuse. The following sections summarize the soil and waste characterization results.

3.1. SOIL COMPARISON RESULTS

The following subsections summarize the comparison results for TPH and BTEX and metals in soil samples ([Tables 1 through 10](#)). Complete laboratory reports are presented in [Appendix D](#).

3.1.1. TPH and BTEX

Concentrations of TPH and BTEX in soil samples were less than the Presidio PRGs for residential soil ([Tables 1 through 4](#)), except for the results of TPH samples collected from visibly stained areas at the Fort Cronkhite Annex ([Table 5](#)). TPH concentrations in sample FCA-TPH (1.0) collected from 1 foot bgs and sample FCA-TPH (2.0) collected from 2 feet bgs exceeded the residential PRGs ([Figure 8](#)). TPH concentrations in the sample collected from the TPH stain at 2.5 feet bgs (FCA-TPH [2.5]) exceeded

ecological PRGs for but were less than the residential PRGs. TPH concentrations in the sample collected from 3.0 feet bgs (FCA-TPH [3.0]) were less than both ecological and residential PRGs.

Toluene concentrations in two samples from Fort Cronkhite Annex exceeded the ecological PRGs but were less than the residential PRGs (FCA-SS-11, FSA-09; [Figure 3](#)). All other BTEX concentrations in soil were less than ecological and residential PRGs.

TPH results for the following samples collected at Fort Cronkhite Annex and Smith Road and two stockpiles at Rifle Range Road also exceeded the ecological PRGs, but were less than residential PRGs ([Figures 3, 4 and 5](#)):

- Fort Cronkhite Annex ([Figure 3](#)): samples FCA-SS-02, FCA-SS-09, FCA-SS-10 and FCA-SS-11
- Smith Road ([Figure 4](#)): samples SR-SS-08, SR-SS-12 and SR-SS-13
- Stockpiles at Rifle Range Road ([Figure 5](#)): samples RR-SS-01 and RR-SS-02.

All other soil samples results were less than the ecological and residential PRGs for TPH.

3.1.2. Metals

Several detections of chromium, thallium, vanadium, and zinc exceeded the ecological PRGs and Presidio background concentrations for chert. In addition, one detection of mercury at Fort Cronkhite Annex (FCA-SS-09) exceeded ecological PRGs and background. All metals concentrations, except for arsenic, were less than the residential PRGs. Tables 6 through 10 present the results for metals in all areas where samples were collected.

Arsenic concentrations exceeded the Presidio residential PRG. Based on the lack of applicable Presidio background concentrations for clay, arsenic concentrations were screened against the established regional background concentration of 11 milligrams per kilogram (mg/kg) ([Duverge, 2011](#)). All arsenic concentrations in soil were less than the established background concentration.

3.2. WASTE CHARACTERIZATION RESULTS

A drainage waste sample was collected on May 31, 2012. Sample results indicated chromium concentrations were more than 10 times the STLC for California making it potentially hazardous waste. On July 20, 2012, ERRG collected a second drainage waste sample (four-point composite) from the same locations as the first sample for analysis of chromium by the WET. Results of the WET are compared with STLCs to determine if the material is considered hazardous waste by the State of California. Sample results for chromium were nondetect, indicating the waste is nonhazardous.

Several soil samples at Fort Cronkhite Annex and Smith Road had chromium concentrations exceeding 10 times the STLC. At NPS direction, ERRG collected additional soil samples on July 20, 2012, to

characterize waste for disposal purposes. Samples were collected from locations with the highest chromium results at Fort Cronkhite Annex and Smith Road. One four-point composite was collected from each site and submitted for analysis of chromium by WET. The WET results for chromium were nondetect at both sites, indicating the waste is nonhazardous.

Metals results in soil samples collected from the stockpiles from Rifle Range Road were less than 10 times the STLC and did not require WET analysis. Soil from stockpiles along Rifle Range Road could be disposed of as nonhazardous if necessary.

Section 4. Laboratory Quality Control and Documentation

Field QC samples are not required for soil reuse or waste disposal purposes and were not collected for this project. Laboratory quality assurance (QA) and QC procedures were carried out in accordance with EPA protocols, and the data were accepted based on the QA/QC criteria established by the [EPA \(2010\)](#). Laboratory QA/QC included method blanks, storage blanks, laboratory control samples (LCS), LCS duplicates (LCSD), and matrix spike/matrix spike duplicate (MS/MSD) samples.

No laboratory blanks had detections of target analytes. MS/MSD samples were analyzed to evaluate matrix interferences in the associated soil samples. Percent recoveries and relative percent difference (RPD) values for MS/MSD samples were not within method-specified control limits for Sample Delivery Groups 720-42273-1 and 720-42296-1. Because of the heterogeneous composition of the soil collected, MS/MSD analysis yielded unacceptable duplicate precision or MS recoveries. However, all percent recoveries and RPD values for applicable LCSs and LCSDs were within method-specified control limits and the data are considered usable. [Appendix D](#) contains the complete laboratory reports.

Section 5. Conclusions and Recommendations

Data were evaluated to determine whether excavated soil can be reused on site or requires off-site disposal. Soil sample results were compared with soil screening criteria for the protection of human and ecological receptors. Based on the data evaluation results presented in [Section 3](#), the following conclusions can be made regarding the reuse or disposal of site soil:

- **TPH:** TPH concentrations in several soil samples from Fort Cronkhite Annex, Smith Road, and two stockpiles at Rifle Range Road exceeded the Presidio ecological PRGs but were less than the residential PRGs. TPH concentrations in two samples collected from TPH stained soil at Fort Cronkhite Annex exceeded both ecological PRGs and residential PRGs. All other TPH concentrations in soil samples were less than ecological and residential PRGs.
- **BTEX:** Benzene, ethylbenzene, and xylenes concentrations in soil samples were less than both ecological and residential PRGs in all soil samples. Toluene concentrations in two samples from Fort Cronkhite Annex exceeded the ecological PRGs but were less than the residential PRGs. All other BTEX concentrations in soil were less than ecological PRGs.
- **Metals:** Several metals, including chromium, thallium, vanadium, and zinc were present in several soil samples at concentrations exceeding the ecological PRGs and Presidio background concentrations for chert. One detection of mercury at Fort Cronkhite Annex (FCA-SS-09) exceeded the ecological PRG and Presidio background concentration for chert. However, all metals concentrations, except for arsenic, in soil were less than the Presidio's PRGs for residential use. Arsenic concentrations were further compared with the regional background concentration for soil of 11 mg/kg ([Duverge, 2011](#)). All arsenic concentrations were less than established regional background. Metals results for soil samples could not be compared with background concentrations for clay because none have been established. Therefore, it is not possible to make a conclusive determination regarding reuse of this soil in areas with ecological sensitivities. However, the possibility exists that metals in clay soil are naturally occurring.

Because the possibility exists that metals in clay soil are naturally occurring, NPS further reviewed the data and concluded that the metals present in clay soil are likely naturally occurring, thus soil with metals is acceptable for reuse in ecologically sensitive areas. Additionally, NPS concluded that only soil with detections of TPH exceeding the ecological PRG (from Fort Cronkhite Annex, Smith Road, and two stockpiles at Rifle Range Road) was not acceptable for unrestricted reuse during road improvement activities. [Appendix C](#) contains memorandum documenting NPS' decision for reusing this soil in ecologically sensitive areas.

Based on the waste characterization results, all drainage waste is nonhazardous. In addition, soil at Smith Road, Fort Cronkhite Annex, and the stockpiles at Rifle Range Road is nonhazardous.

Based on the conclusions of this sampling effort, the following recommendations are made for use of soil during road improvement projects at the Fort Cronkhite and Surfers Overflow parking lots, Fort Cronkhite Annex, Smith Road, Bunker Road near the historic rifle range, stockpiles at Rifle Range Road, and Alexander Avenue:

- Soil from the Fort Cronkhite Annex (FCA-SS-02, FCA-SS-09, FCA-SS-10, and FCA-SS-11), Smith Road (SR-SS-08, SR-SS-12 and SR-SS-13), and two stockpiles at Rifle Range Road (RR-SS-01 and RR-SS-02) should not be reused in sensitive ecological areas. [Appendix C](#) contains a memorandum documenting NPS' decision for reusing this soil in ecologically sensitive areas.
- TPH stained soil at the Fort Cronkhite Annex should be excavated and disposed of as nonhazardous waste at an off-site disposal facility.
- Soil in all other areas where excavation may occur is suitable for unrestricted reuse. [Appendix C](#) contains a memorandum documenting NPS' decision for unrestricted reuse of this soil.

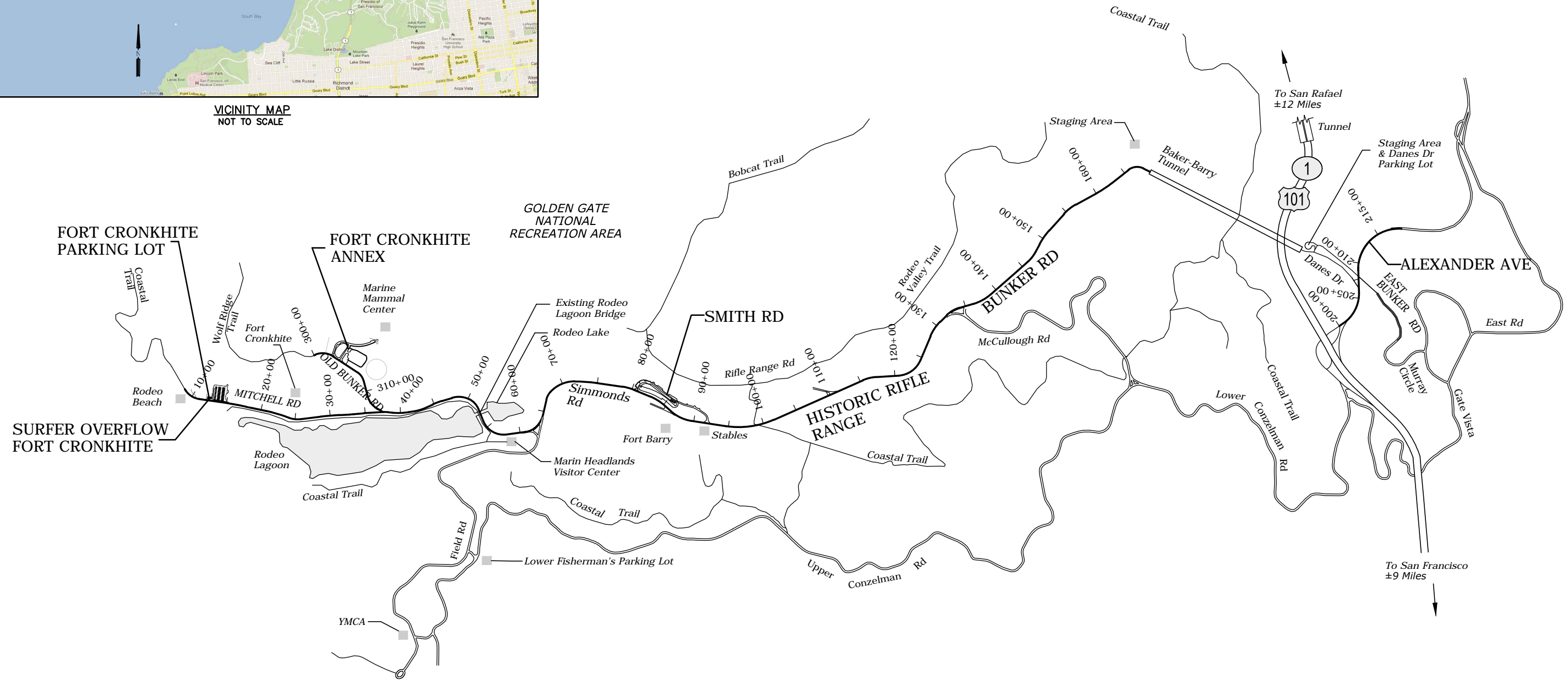
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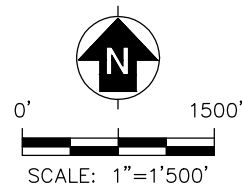
Figures



VICINITY MAP
NOT TO SCALE



FILE NAME: N:\Graphics\2012\2012-031 NPS\Fig1.dwg LAYOUT NAME: 1 PLOTTED: Wednesday, July 25, 2012 - 10:09am



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CLIENT: NATIONAL PARK SERVICE
LOCATION: BUNKER ROAD
MARIN HEADLANDS, CALIFORNIA

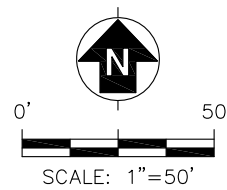
SITE LOCATION AND VICINITY MAP			
DRAWN BY:	CHECKED BY:	PROJECT NO.	FIG NO.
SC 07/25/12	TA 07/25/12	2012-031	1

FILE NAME: N:\Graphics\2012\2012-031 NFS\Fig2.dwg LAYOUT NAME: 2 PLOTTED: Monday, July 30, 2012 - 7:35am




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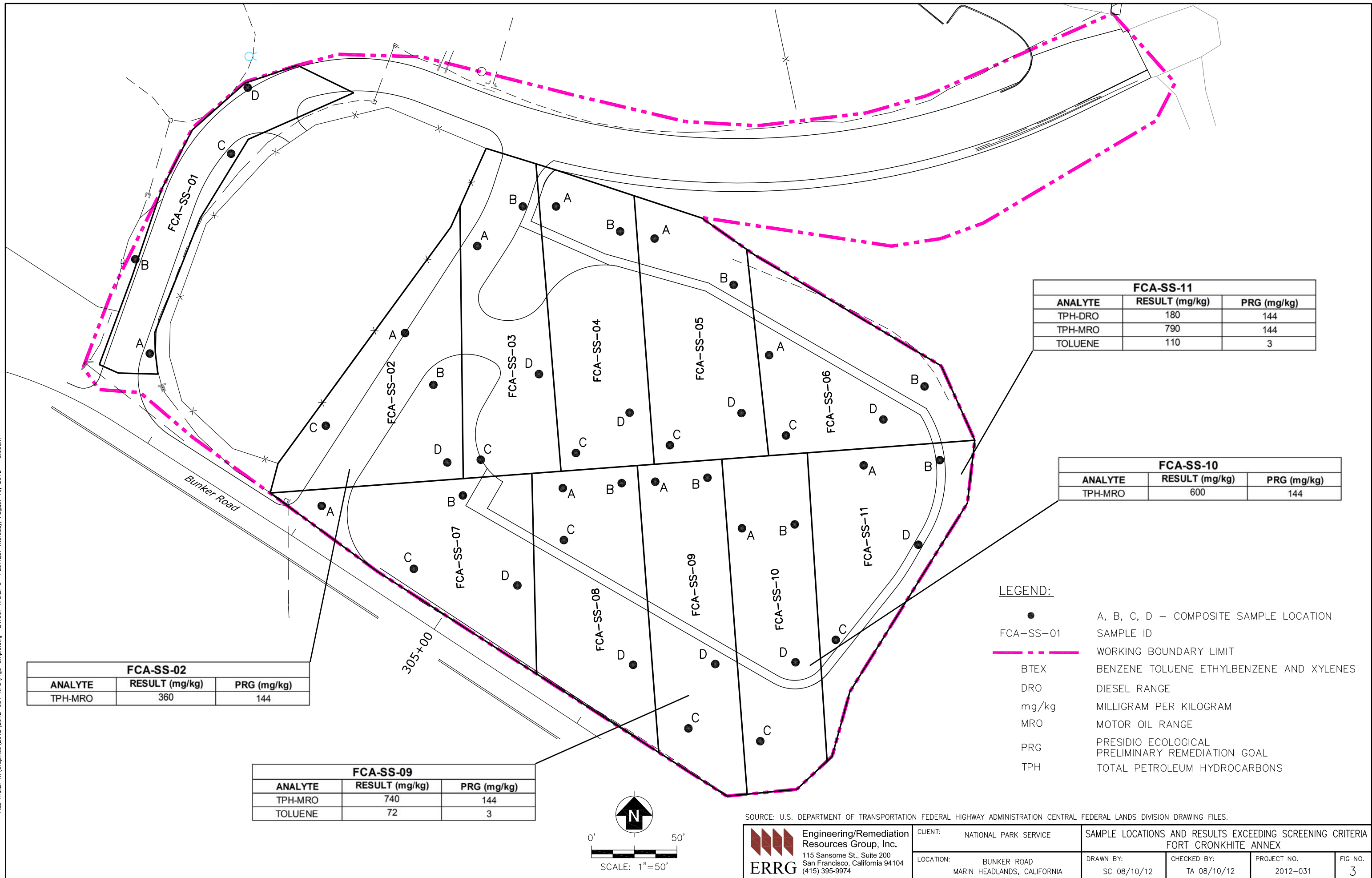
- A, B, C, D – COMPOSITE SAMPLE LOCATION
- FCSO-SS-01 SAMPLE ID
- WORKING BOUNDARY LIMIT



SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

 Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: NATIONAL PARK SERVICE	SAMPLE LOCATIONS FORT CRONKHITE/SURFER OVERFLOW PARKING LOTS		
	LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 07/30/12	CHECKED BY: TA 07/30/12	PROJECT NO.: 2012-031

FILE NAME: N:\Graphics\2012\2012-031 NFS\Fig3-smpis.dwg LAYOUT NAME: 3 PLOTTED: Thursday, August 16, 2012 - 8:05am



FCA-SS-02		
ANALYTE	RESULT (mg/kg)	PRG (mg/kg)
TPH-MRO	360	144

FCA-SS-09		
ANALYTE	RESULT (mg/kg)	PRG (mg/kg)
TPH-MRO	740	144
TOLUENE	72	3

FCA-SS-11		
ANALYTE	RESULT (mg/kg)	PRG (mg/kg)
TPH-DRO	180	144
TPH-MRO	790	144
TOLUENE	110	3

FCA-SS-10		
ANALYTE	RESULT (mg/kg)	PRG (mg/kg)
TPH-MRO	600	144

LEGEND:

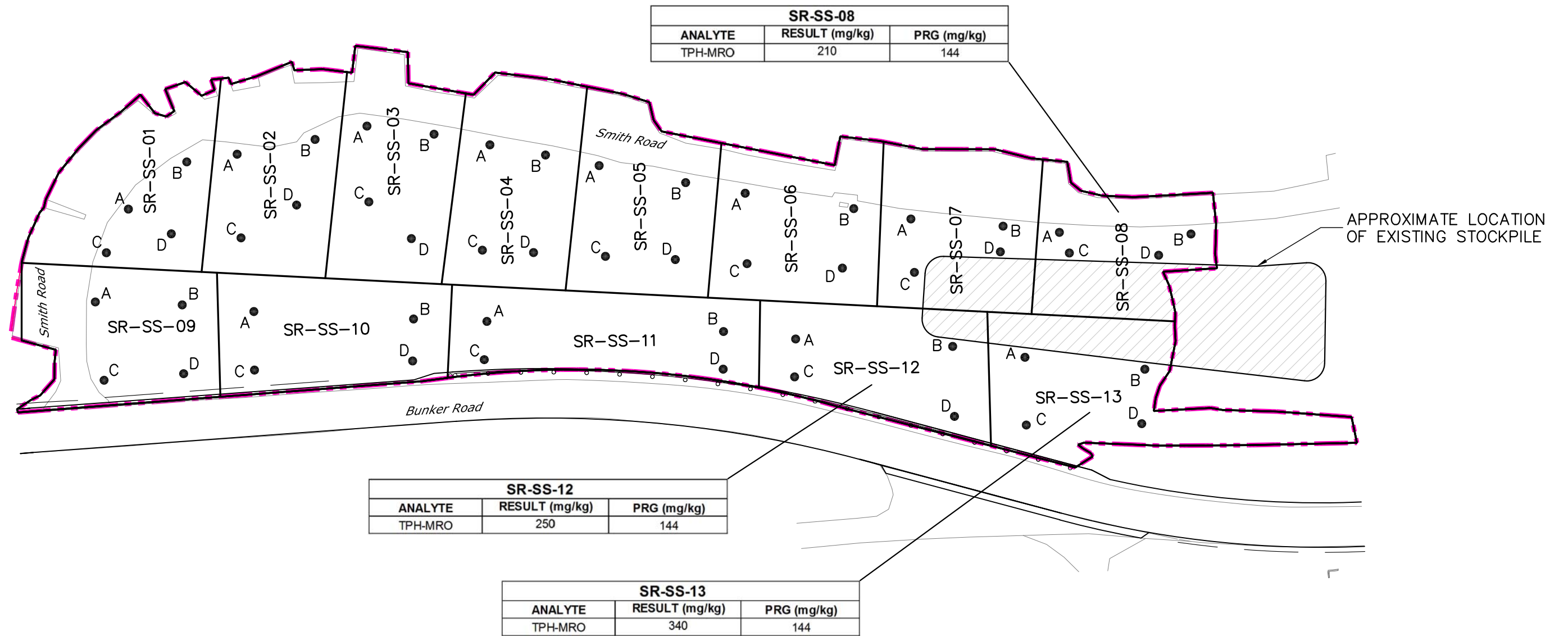
- A, B, C, D - COMPOSITE SAMPLE LOCATION
- FCA-SS-01 SAMPLE ID
- WORKING BOUNDARY LIMIT
- BTEX BENZENE TOLUENE ETHYLBENZENE AND XYLENES
- DRO DIESEL RANGE
- mg/kg MILLIGRAM PER KILOGRAM
- MRO MOTOR OIL RANGE
- PRG PRESIDIO ECOLOGICAL PRELIMINARY REMEDIATION GOAL
- TPH TOTAL PETROLEUM HYDROCARBONS

SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

ERRG Engineering/Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, California 94104
 (415) 395-9974

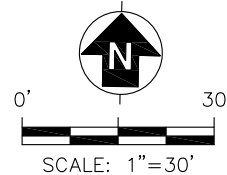
CLIENT: NATIONAL PARK SERVICE	SAMPLE LOCATIONS AND RESULTS EXCEEDING SCREENING CRITERIA FORT CRONKHITE ANNEX		
LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 08/10/12	CHECKED BY: TA 08/10/12	PROJECT NO. 2012-031
			FIG NO. 3

FILE NAME: N:\Graphics\2012\2012-031 NFS\Fig4-smpis.dwg LAYOUT NAME: 4 PLOTTED: Thursday, August 16, 2012 - 8:04am




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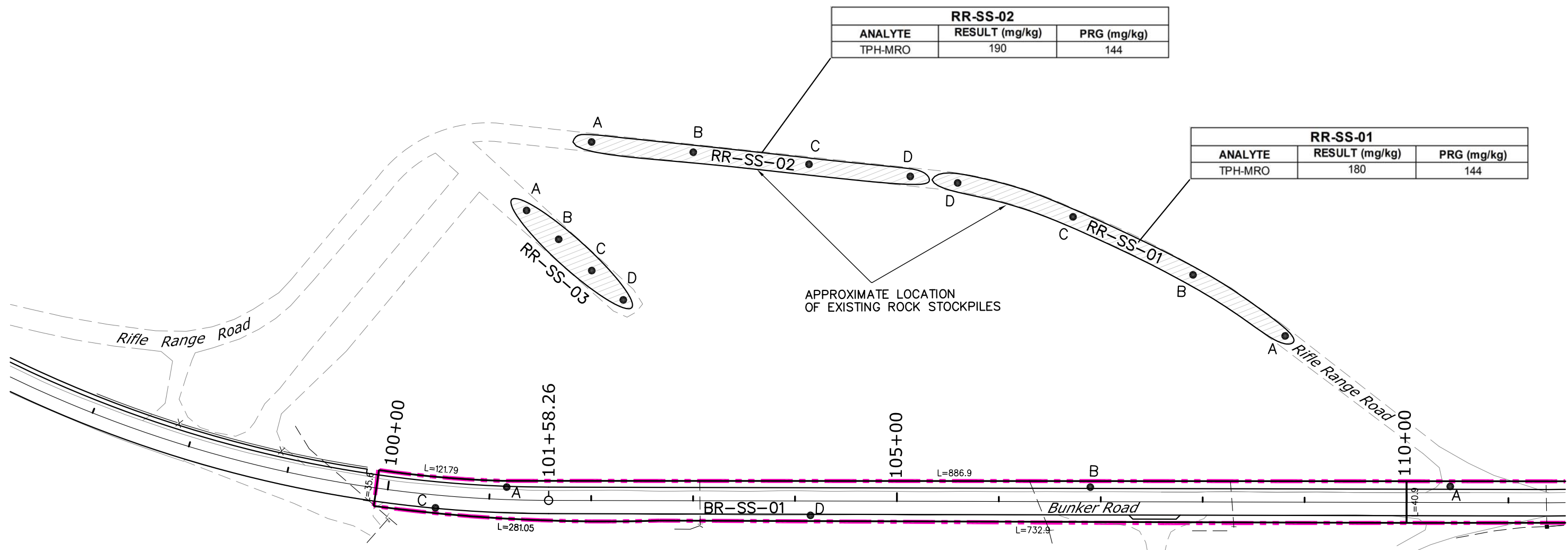
- A, B, C, D - COMPOSITE SAMPLE LOCATION
- SR-SS-01 SAMPLE ID
- WORKING BOUNDARY LIMIT
- BTEX BENZENE TOLUENE ETHYLBENZENE AND XYLENES
- DRO DIESEL RANGE
- mg/kg MILLIGRAM PER KILOGRAM
- MRO MOTOR OIL RANGE
- PRG PRESIDIO ECOLOGICAL PRELIMINARY REMEDIATION GOAL
- TPH TOTAL PETROLEUM HYDROCARBONS



SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

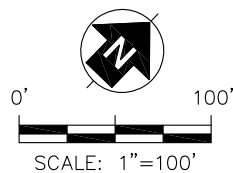
 Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: NATIONAL PARK SERVICE	SAMPLE LOCATIONS AND RESULTS EXCEEDING SCREENING CRITERIA SMITH ROAD		
	LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 08/10/12	CHECKED BY: TA 08/10/12	PROJECT NO. 2012-031

FILE NAME: N:\Graphics\2012\2012-031 NPS\Fig5-smpis.dwg LAYOUT NAME: 5 PLOTTED: Thursday, August 16, 2012 - 10:37am



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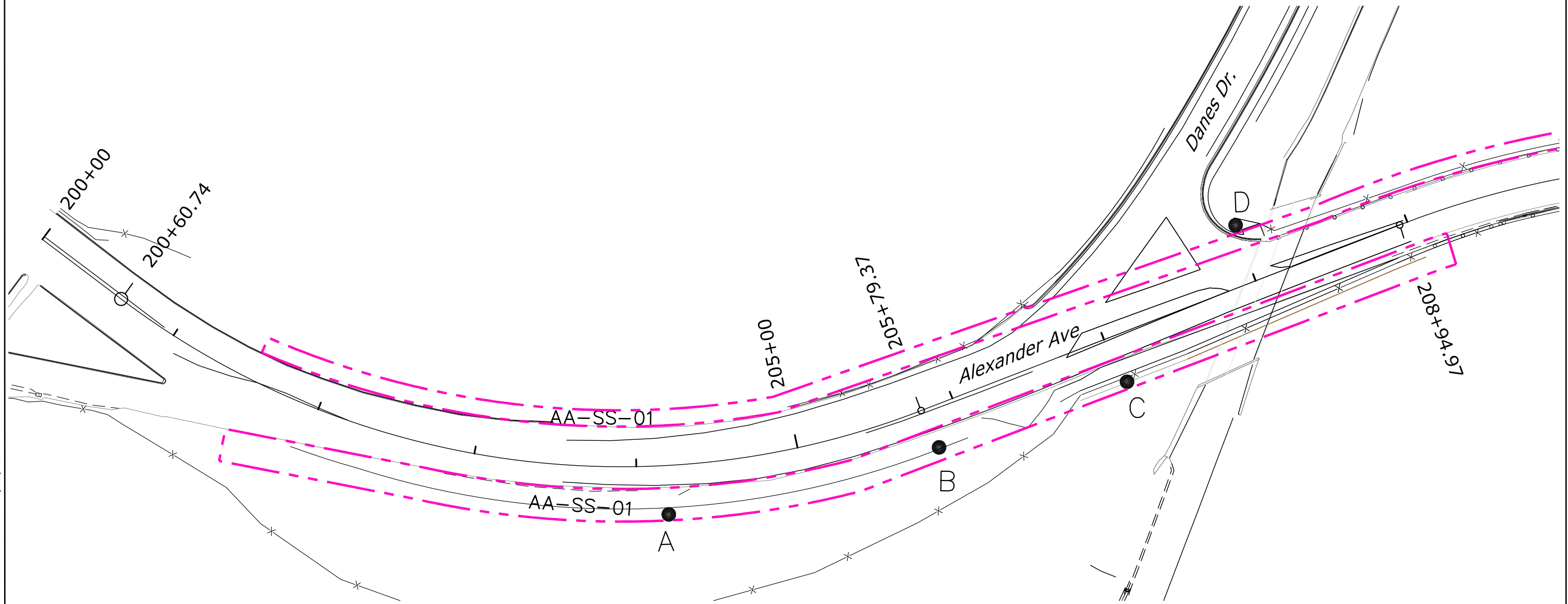
- A, B, C, D - COMPOSITE SAMPLE LOCATION
- RR-SS-01 SAMPLE ID
- WORKING BOUNDARY LIMIT
- STOCKPILE
- BTEX BENZENE TOLUENE ETHYLBENZENE AND XYLENES
- DRO DIESEL RANGE
- mg/kg MILLIGRAM PER KILOGRAM
- MRO MOTOR OIL RANGE
- PRG PRESIDIO ECOLOGICAL PRELIMINARY REMEDIATION GOAL
- TPH TOTAL PETROLEUM HYDROCARBONS



SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

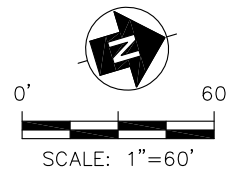
 Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: NATIONAL PARK SERVICE	SAMPLE LOCATIONS AND RESULTS EXCEEDING SCREENING CRITERIA BUNKER ROAD AT HISTORIC RIFLE RANGE		
	LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 08/13/12	CHECKED BY: TA 08/13/12	PROJECT NO. 2012-031

FILE NAME: N:\Graphics\2012\2012-031 NFS\Fig6.dwg LAYOUT NAME: 6 PLOTTED: Monday, July 30, 2012 - 7:46am




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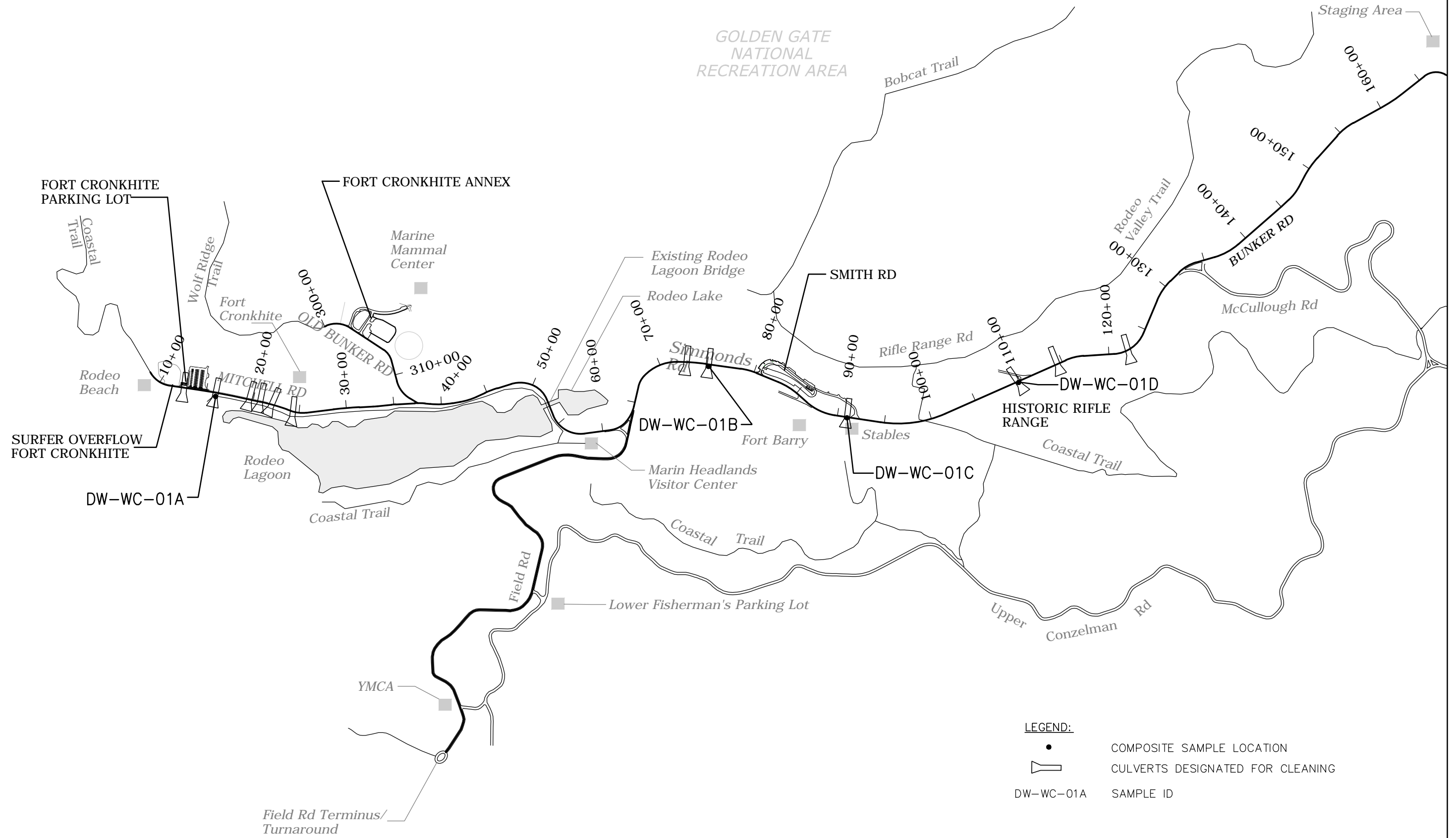
- A, B, C, D - COMPOSITE SAMPLE LOCATION
- AA-SS-01 SAMPLE ID
- — — — — WORKING BOUNDARY LIMIT




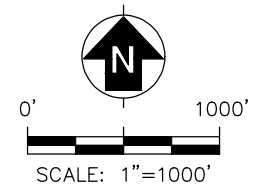
SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

 Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: NATIONAL PARK SERVICE	SAMPLE LOCATIONS ALEXANDER AVENUE		
	LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 07/30/12	CHECKED BY: TA 07/30/12	PROJECT NO.: 2012-031


FILE NAME: N:\Graphics\2012\2012-031 NPS\Fig7.dwg LAYOUT NAME: 7 PLOTTED: Monday, July 30, 2012 - 7:49am



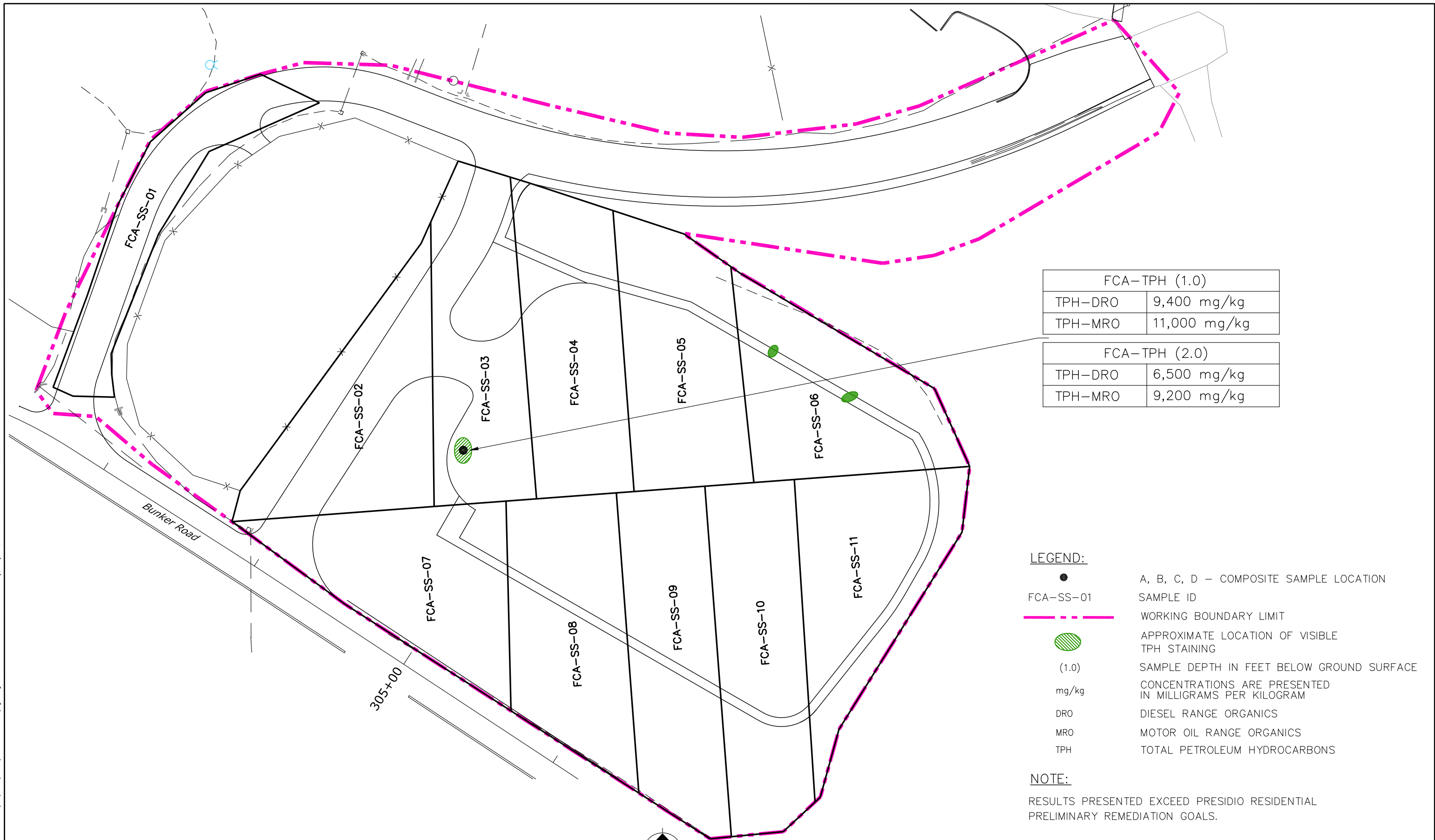
LEGEND:
 • COMPOSITE SAMPLE LOCATION
 CULVERTS DESIGNATED FOR CLEANING
 DW-WC-01A SAMPLE ID



SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

 Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: NATIONAL PARK SERVICE	SAMPLE LOCATIONS DRAINAGE WASTE COMPOSITE		
	LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 07/30/12	CHECKED BY: TA 07/30/12	PROJECT NO. 2012-031

FILE NAME: N:\Graphics\2012\2012-031 NPS\Fig8.dwg LAYOUT NAME: 3 PLOTTED: Monday, July 30, 2012 - 7:50am



FCA-TPH (1.0)	
TPH-DRO	9,400 mg/kg
TPH-MRO	11,000 mg/kg

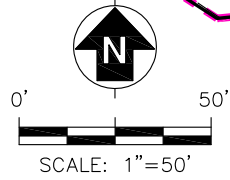
FCA-TPH (2.0)	
TPH-DRO	6,500 mg/kg
TPH-MRO	9,200 mg/kg

LEGEND:

- A, B, C, D – COMPOSITE SAMPLE LOCATION
- FCA-SS-01 SAMPLE ID
- WORKING BOUNDARY LIMIT
- APPROXIMATE LOCATION OF VISIBLE TPH STAINING
- (1.0) SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
- mg/kg CONCENTRATIONS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM
- DRO DIESEL RANGE ORGANICS
- MRO MOTOR OIL RANGE ORGANICS
- TPH TOTAL PETROLEUM HYDROCARBONS

NOTE:

RESULTS PRESENTED EXCEED PRESIDIO RESIDENTIAL PRELIMINARY REMEDIATION GOALS.



SOURCE: U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS DIVISION DRAWING FILES.

Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: NATIONAL PARK SERVICE	TPH STAINING LOCATIONS AND SAMPLE RESULTS FORT CRONKHITE ANNEX		
	LOCATION: BUNKER ROAD MARIN HEADLANDS, CALIFORNIA	DRAWN BY: SC 07/25/12	CHECKED BY: TA 07/25/12	PROJECT NO.: 2012-031

Tables

Table 1. TPH and BTEX in Soil, Fort Cronkhite and Surfers Overflow

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Sample Location (mg/kg)													
			FCSO-SS-01	FCSO-SS-02	FCSO-SS-03	FCSO-SS-04	FCSO-SS-05	FCSO-SS-06	FCSO-SS-07	FCSO-SS-08	FCSO-SS-09	FCSO-SS-10	FCSO-SS-11	FCSO-SS-12	FCSO-SS-13	FCSO-SS-14
TPH-DRO	1,380	144 ^a	<1.2	<1.2	<1.1	<1.2	<1.2	<1.1	<1.1	<1.1	<1.2	<1.2	<1.2	<1.2	11	1.2
TPH-GRO ¹	1,030	11.6 ^b	<280	<240	<260	<250	<250	<260	<330	<210	<250	<260	<250	<260	<320	<280
TPH-MRO	1,900	144 ^{a,b}	<61	<62	<57	<58	<58	<55	<57	<56	<58	<59	<58	<60	<62	<52
Benzene	0.6	0.79 ^a	<0.0056	<0.0047	<0.0052	<0.005	<0.005	<0.0051	<0.0065	<0.0042	<0.0051	<0.0052	<0.005	<0.0052	<0.0064	<0.0056
Toluene	530	3 ^a	<0.0056	<0.0047	<0.0052	<0.005	<0.005	<0.0051	<0.0065	<0.0042	<0.0051	<0.0052	<0.005	<0.0052	<0.0064	<0.0056
Ethylbenzene	840	5 ^b	<0.0056	<0.0047	<0.0052	<0.005	<0.005	<0.0051	<0.0065	<0.0042	<0.0051	<0.0052	<0.005	<0.0052	<0.0064	<0.0056
Total Xylenes	^{1,080}	5.7 ^a	<0.011	<0.0094	<0.01	<0.01	<0.01	<0.01	<0.013	<0.0084	<0.01	<0.01	<0.01	<0.01	<0.013	<0.011

Notes:

1 = TPH-GRO and BTEX analyzed from the "A" sub-sample within the four-point composite sample

PRG = preliminary remediation goal

a = Protection of freshwater aquatic organisms

b = Protection of saltwater aquatic organisms

c = Protection of human health residential scenario

mg/kg = milligrams per kilogram

TPH-DRO = total petroleum hydrocarbons as diesel-range organics

TPH-GRO = total petroleum hydrocarbons as gasoline-range organics

TPH-MRO = total petroleum hydrocarbons as motor oil -range organics

< = not detected at concentration greater than reporting limit

Table 2. TPH and BTEX in Soil, Fort Cronkhite Annex

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Sample Result (mg/kg)										
			FCA-SS-01	FCA-SS-02	FCA-SS-03	FCA-SS-04	FCA-SS-05	FCA-SS-06	FCA-SS-07	FCA-SS-08	FCA-SS-09	FCA-SS-10	FCA-SS-11
TPH-DRO	1,380	144 ^a	94	57	<1.1	20	12	15	5.9	17	110	120	180
TPH-GRO ¹	1,030	11.6 ^b	<320	<280	<320	<260	<250	<260	<280	<250	<270	<240	<240
TPH-MRO	1,900	144 ^{a,b}	400	360	<57	95	82	88	<57	92	740	600	790
Benzene	0.6	0.79 ^a	<0.0064	<0.0055	<0.0064	<0.0052	<0.0051	<0.0053	<0.0057	<0.005	<0.0055	<0.0047	<0.0048
Toluene	530	3 ^a	<0.0064	<0.0055	<0.0064	<0.0052	<0.0051	<0.0053	<0.0057	<0.005	72	<0.0047	110
Ethylbenzene	840	5 ^b	<0.0064	<0.0055	<0.0064	<0.0052	<0.0051	<0.0053	<0.0057	<0.005	<0.0055	<0.0047	<0.0048
Total Xylenes	1,080	5.7 ^a	<0.013	<0.011	<0.013	<0.010	<0.010	<0.011	<0.011	<0.010	<0.011	<0.0095	<0.0096

Notes:

Results in **Bold** exceed Presidio special-status PRGs

1 = TPH-GRO and BTEX analyzed from the "A" sub-sample within the four-point composite sample

PRG = preliminary remediation goal

a = Protection of freshwater aquatic organisms

b = Protection of saltwater aquatic organisms

c = Protection of human health residential scenario

mg/kg = milligrams per kilogram

TPH-DRO = total petroleum hydrocarbons as diesel-range organics

TPH-GRO = total petroleum hydrocarbons as gasoline-range organics

TPH-MRO = total petroleum hydrocarbons as motor oil-range organics

< = not detected at concentration greater than reporting limit

Table 3. TPH and BTEX in Soil, Smith Road

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Sample Location (mg/kg)												
			SR-SS-01	SR-SS-02	SR-SS-03	SR-SS-04	SR-SS-05	SR-SS-06	SR-SS-07	SR-SS-08	SR-SS-09	SR-SS-10	SR-SS-11	SR-SS-12	SR-SS-13
TPH-DRO	1,380	144 ^a	1.2	<1.1	8.8	<1.1	8.7	8.7	38	28	<1.1	4.4	24	40	40
TPH-GRO ¹	1,030	11.6 ^b	<320	<300	<280	<240	<250	<260	<270	<310	<340	<290	<340	<240	<250
TPH-MRO	1,900	144 ^{a,b}	<56	<56	<58	<57	<56	<56	78	210	<56	<56	120	250	340
Benzene	0.6	0.79 ^a	<0.0065	<0.006	<0.0056	<0.0048	<0.0051	<0.0053	<0.0055	<0.0062	<0.0067	<0.0059	<0.0067	<0.0048	<0.005
Toluene	530	3 ^a	<0.0065	<0.006	<0.0056	<0.0048	<0.0051	<0.0053	<0.0055	<0.0062	<0.0067	<0.0059	<0.0067	<0.0048	<0.005
Ethylbenzene	840	5 ^b	<0.0065	<0.006	<0.0056	<0.0048	<0.0051	<0.0053	<0.0055	<0.0062	<0.0067	<0.0059	<0.0067	<0.0048	<0.005
Total Xylenes	1,080	5.7 ^a	<0.013	<0.012	<0.011	<0.095	<0.010	<0.011	<0.011	<0.012	<0.013	<0.012	<0.013	<0.09.6	<0.010

Notes:

Results in **Bold** exceed Presidio special status PRGs

1 = TPH-GRO and BTEX analyzed from the "A" sub-sample within the four-point composite sample

PRG = preliminary remediation goal

a = Protection of freshwater aquatic organisms

b = Protection of saltwater aquatic organisms

c = Protection of human health residential scenario

mg/kg = milligrams per kilogram

TPH-DRO = total petroleum hydrocarbons as diesel-range organics

TPH-GRO = total petroleum hydrocarbons as gasoline-range organics

TPH-MRO = total petroleum hydrocarbons as motor oil-range organics

< = not detected at concentration greater than reporting limit

Table 4. TPH and BTEX in Soil, Bunker Road at Historic Rifle Range, Rifle Range Road Stockpiles, and Alexander Avenue and in Drainage Waste

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Sample Location (mg/kg)						
			AA-SS-01	BR-SS-01	BR-SS-02	RR-SP-01	RR-SP-02	RR-SP-03	DC-WC-01
TPH-DRO	1,380	144 ^a	16	4.7	11	28	34	6.6	6.6
TPH-MRO	1,900	144 ^{a,b}	81	<53	85	180	190	<54	<54
TPH-GRO ¹	1,030	11.6 ^b	<290	<230	<240	<330	<300	<290	<290
Benzene	0.6	0.79 ^a	<0.0058	<0.0046	<0.0048	<0.0067	<0.006	<0.0058	<0.0058
Toluene	530	3 ^a	<0.0058	<0.0046	<0.0048	<0.0067	<0.006	<0.0058	<0.0058
Ethylbenzene	840	5 ^b	<0.0058	<0.0046	<0.0048	<0.0067	<0.006	<0.0058	<0.0058
Total Xylenes	1,080	5.7 ^a	<0.012	<0.0091	<0.0097	<0.013	<0.012	<0.012	<0.012

Notes:

Results in **Bold** exceed Presidio ecological special status PRGs

1 = TPH-GRO and BTEX analyzed from the "A" sub-sample within the four-point composite sample

PRG = preliminary remediation goal

a = Protection of freshwater aquatic organisms

b = Protection of saltwater aquatic organisms

c = Protection of human health residential scenario

mg/kg = milligrams per kilogram

TPH-DRO = total petroleum hydrocarbons as diesel-range organics

TPH-GRO = total petroleum hydrocarbons as gasoline-range organics

TPH-MRO = total petroleum hydrocarbons as motor oil-range organics

< = not detected at concentration greater than reporting limit

Table 5. TPH and BTEX in Soil, Fort Cronkhite Annex TPH Stain Sampling

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Sample Location (mg/kg)			
			FCA-TPH (1.0)	FCA-TPH (2.0)	FCA-TPH (2.5)	FCA-TPH (3.0)
TPH-DRO	1,380	144 ^a	9,400	6,500	230	16
TPH-MRO	1,900	144 ^{a,b}	11,000	9,200	310	<49
TPH-GRO ¹	1,030	11.6 ^b	<1.0	<0.240	<0.240	<0.250
Benzene	0.6	0.79 ^a	<0.02	<0.0048	<0.0049	<0.005
Toluene	530	3 ^a	<0.02	<0.0048	<0.0049	<0.005
Ethylbenzene	840	5 ^b	<0.02	<0.0048	<0.0049	<0.005
Total Xylenes	1,080	5.7 ^a	<0.04	<0.0097	<0.0097	<0.001

Notes:

Results in **Bold** exceed Presidio ecological special status PRGs

Results in **RED** exceed Presidio residential PRGs

1 = TPH-GRO and BTEX analyzed from the "A" sub-sample within the four-point composite sample

PRG = preliminary remediation goal

a = Protection of freshwater aquatic organisms

b = Protection of saltwater aquatic organisms

c = Protection of human health residential scenario

mg/kg = milligrams per kilogram

TPH-DRO = total petroleum hydrocarbons as diesel-range organics

TPH-GRO = total petroleum hydrocarbons as gasoline-range organics

TPH-MRO = total petroleum hydrocarbons as motor oil-range organics

< = not detected at concentration greater than reporting limit

Table 6. Metals in Soil, Fort Cronkhite/Surfer Overflow Parking Lot

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Background Concentration for Chert (mg/kg)	Sample Location (mg/kg)													
				FCSO-SS-01	FCSO-SS-02	FCSO-SS-03	FCSO-SS-04	FCSO-SS-05	FCSO-SS-06	FCSO-SS-07	FCSO-SS-08	FCSO-SS-09	FCSO-SS-10	FCSO-SS-11	FCSO-SS-12	FCSO-SS-13	FCSO-SS-14
Antimony	29	5	3.0	<2.5	<2.4	<2.2	<2.2	<2.3	<2.1	<2.3	<2.2	<2.1	<2.3	<2.1	<2.4	<5.9	<1.9
Arsenic	0.36	10	11 ¹	<4.9	5.4	5.5	5.3	6.5	5.5	6.8	5.9	4.8	5.7	5.1	<4.8	6.4 J	<3.8
Barium	5,000	320	900	190	210	150	170	160	160	86	150	170	190	240	160	580	270
Beryllium	140	10	0.72	<0.49	<0.48	<0.44	0.52	0.56	0.47	0.56	0.51	<0.42	<0.46	0.45	0.51	0.69 J	<0.38
Cadmium	1.7	0.017	1.7	<0.61	<0.6	<0.55	<0.55	<0.57	<0.52	<0.57	<0.54	<0.53	<0.58	<0.53	<0.6	0.19 J	<0.48
Chromium	1,200	4	41	51	59	62	71	79	63	84	72	61	87	61	64	43	18
Cobalt	4,000	20	37	20	16	17	17	20	17	13	12	13	11	15	32	18	11
Copper	NA	30	360	24	25	21	27	29	39	29	26	31	26	28	20	160	57
Lead	400	160	45	7.5	6.6	6.6	6.1	6.5	8.1	6	7.7	7.7	5.9	6.4	7.8	16	19
Mercury	20	0.4	0.2	0.030	0.03	0.041	0.03	0.06	0.043	0.06	0.042	0.026	0.058	0.025	0.055	0.044	0.021
Molybdenum	360	12	2.0	<2.5	<2.4	<2.2	<2.2	<2.3	<2.1	2.6	<2.2	<2.1	<2.3	<2.1	<2.4	<5.9	<1.9
Nickel	1,400	30	71	37	41	41	47	60	37	35	40	46	62	47	38	46	20
Selenium	360	0.2	0.5	<4.9	<4.8	<4.4	<4.4	<4.5	<4.2	<4.6	<4.3	<4.2	<4.6	<4.3	<4.8	<12	<3.8
Silver	360	2	1.0	<1.2	<1.2	<1.1	<1.1	<1.1	<1	<1.1	<1.1	<1.1	<1.2	<1.1	<1.2	4.1	<0.95
Thallium	5.7	0.15	1.0	<2.5	<2.4	<2.2	<2.2	<2.3	<2.1	<2.3	<2.2	<2.1	<2.3	<2.1	<2.4	<1.7	<1.9
Vanadium	650	2	61	63	64	63	76	77	67	76	73	65	74	70	70	71	35
Zinc	22,000	4	120	36	33	34	37	41	33	22	34	32	38	38	28	63	21

Notes:

1 = Regional background concentration for arsenic (Duverge, 2011).

J = estimated value; reported between the method detection limit and the reporting limit.

mg/kg = milligrams per kilogram

NA = not applicable

PRG = preliminary remediation goal

< = not detected at concentration greater than reporting limit

Table 7. Metals in Soil, Fort Cronkhite Annex

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Background Concentration for Chert (mg/kg)	Sample (mg/kg)										
				FCA-SS-01	FCA-SS-02	FCA-SS-03	FCA-SS-04	FCA-SS-05	FCA-SS-06	FCA-SS-07	FCA-SS-08	FCA-SS-09	FCA-SS-10	FCA-SS-11
Antimony	29	5	3.0	<2	<2	<2.2	<2.2	<2.2	<2.1	<2.2	<2.1	<2.1	<2.1	<2.1
Arsenic	0.36	10	11 ¹	6	5.5	7.9	5.6	<4.4	4.5	7.7	<4.2	4.7	5.3	6.5
Barium	5,000	320	900	320	250	150	410	150	190	670	270	230	200	170
Beryllium	140	10	0.72	0.62	0.49	1.1	0.57	<0.44	0.42	0.75	<0.42	0.48	<0.42	<0.41
Cadmium	1.7	0.017	1.7	<0.51	<0.51	<0.55	<0.55	<0.55	<0.52	<0.54	<0.52	<0.54	<0.53	<0.51
Chromium	1,200	4	41	54	54	47	49	28	30	56	52	42	38	33
Cobalt	4,000	20	37	17	13	14	20	8.4	11	16	18	19	18	16
Copper	NA	30	360	78	71	32	77	26	37	74	57	43	49	39
Lead	400	160	45	52	24	14	18	13	17	27	14	16	19	12
Mercury	20	0.4	0.2	0.11	0.21	0.036	0.22	0.052	0.041	0.15	0.11	0.51	0.084	0.13
Molybdenum	360	12	2.0	<2	<2	<2.2	<2.2	<2.2	<2.1	<2.2	<2.1	<2.1	<2.1	<2.1
Nickel	1,400	30	71	59	40	33	44	22	30	51	44	41	49	31
Selenium	360	0.2	0.5	<4.1	<4.1	<4.4	<4.4	<4.4	<4.2	<4.3	<4.2	<4.3	<4.2	<4.1
Silver	360	2	1.0	<1	<1	<1.1	<1.1	<1.1	<1	<1.1	<1	<1.1	<1.1	<1
Thallium	5.7	0.15	1.0	<2	<2	<2.2	<2.2	<2.2	<2.1	<2.2	<2.1	<2.1	<2.1	<2.1
Vanadium	650	2	61	66	48	68	95	38	46	79	59	59	72	66
Zinc	22,000	4	120	89	65	39	67	34	47	66	59	53	76	47

Notes:
 1 = Regional background concentration for arsenic (Duverge, 2011).
 mg/kg = milligrams per kilogram
 NA = not applicable
 PRG = preliminary remediation goal
 < = not detected at concentration greater than reporting limit

Table 8. Metals in Soil, Smith Road

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Background Concentration for Chert (mg/kg)	Sample Location (mg/kg)												
				SR-SS-01	SR-SS-02	SR-SS-03	SR-SS-04	SR-SS-05	SR-SS-06	SR-SS-07	SR-SS-08	SR-SS-09	SR-SS-10	SR-SS-11	SR-SS-12	SR-SS-13
Antimony	29	5	3.0	<2.2	<2.2	<2.3	<2.3	<2.1	<2.3	<2.1	<2.1	<2.1	<2.2	<2.2	<2.1	<2.2
Arsenic	0.36	10	11 ¹	<4.5	<4.4	<4.7	<4.6	5.2	<4.5	4.3	6.3	<4.3	<4.5	<4.5	4.6	5.4
Barium	5,000	320	900	350	440	440	330	420	300	520	780	480	620	420	680	650
Beryllium	140	10	0.72	<0.45	<0.44	0.47	<0.46	0.48	0.45	0.48	0.68	0.47	0.54	<0.45	<0.43	0.49
Cadmium	1.7	0.017	1.7	<0.46	<0.55	<0.59	<0.57	<0.53	<0.57	<0.54	<0.53	<0.54	<0.56	<0.56	<0.54	<0.54
Chromium	1,200	4	41	47	35	55	49	43	63	45	54	51	45	33	26	42
Cobalt	4,000	20	37	20	15	23	20	17	28	25	25	22	15	15	29	30
Copper	NA	30	360	33	90	39	28	71	41	63	100	30	41	78	88	89
Lead	400	160	45	15	65	24	7.1	33	26	35	43	9.7	25	42	14	37
Mercury	20	0.4	0.2	0.090	0.088	0.1	0.069	0.090	0.1	0.11	0.12	0.060	0.052	0.18	0.069	0.11
Molybdenum	360	12	2.0	<2.2	<2.2	<2.3	<2.3	<2.1	<2.3	<2.1	<2.1	<2.1	<2.2	<2.2	<2.1	<2.2
Nickel	1,400	30	71	29	35	31	27	33	32	35	45	40	33	39	37	44
Selenium	360	0.2	0.5	<4.5	<4.4	<4.7	<4.6	<4.2	<4.5	<4.3	<4.2	<4.3	<4.5	<4.5	<4.3	<4.3
Silver	360	2	1.0	<1.1	<1.1	<1.2	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Thallium	5.7	0.15	1.0	<2.2	<2.2	<2.3	<2.3	<2.1	<2.3	<2.1	5.4	<2.1	<2.2	<2.2	<2.1	<2.2
Vanadium	650	2	61	93	62	98	78	110	150	150	140	51	56	49	170	180
Zinc	22,000	4	120	40	120	57	30	61	63	83	91	31	57	86	81	110

Notes:
 1 = Regional background concentration for arsenic (Duverge, 2011).
 mg/kg = milligrams per kilogram
 NA = not applicable
 PRG = preliminary remediation goal
 < = not detected at concentration greater than reporting limit

Table 9. Metals in Soil, Bunker Road at Historic Rifle Range, Rifle Range Road Stockpiles, Alexander Avenue Soil Sample and Drainage Waste

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Background Concentration for Chert (mg/kg)	Sample Location (mg/kg)						
				AA-SS-01	BR-SS-01	BR-SS-02	RR-SP-01	RR-SP-02	RR-SP-03	DC-WC-01
Antimony	29	5	3.0	<2.1	<2.1	<1.9	<2	<2	<2.1	<2.2
Arsenic	0.36	10	11 ¹	4.9	4.3	<3.9	4.4	4.6	7.9	<4.4
Barium	5,000	320	900	190	330	220	620	370	460	310
Beryllium	140	10	0.72	<0.43	0.58	<0.39	<0.4	<0.4	<0.42	<0.44
Cadmium	1.7	0.017	1.7	<0.53	<0.51	<0.49	<0.51	<0.5	<0.52	<0.55
Chromium	1,200	4	41	35	30	32	35	41	21	51
Cobalt	4,000	20	37	40	19	19	27	25	13	21
Copper	NA	30	360	55	120	70	96	83	100	52
Lead	400	160	45	120	84	22	21	21	16	28
Mercury	20	0.4	0.2	0.037	0.11	0.14	0.072	0.1	0.049	0.061
Molybdenum	360	12	2.0	<2.1	<2.1	<1.9	<2	<2	<2.1	<2.2
Nickel	1,400	30	71	31	32	29	37	33	31	36
Selenium	360	0.2	0.5	<4.3	<4.1	<3.9	<4	<4	<4.2	<4.4
Silver	360	2	1.0	<1.1	<1	<0.97	<1	<0.99	<1	<1.1
Thallium	5.7	0.15	1.0	<2.1	<2.1	<1.9	<2	<2	2.6	<2.2
Vanadium	650	2	61	200	59	97	130	140	100	100
Zinc	22,000	4	120	140	52	51	72	73	64	93

Notes:

1 = Regional background concentration for arsenic (Duverge, 2011).

mg/kg = milligrams per kilogram

NA = not applicable

PRG = preliminary remediation goal

< = not detected at concentration greater than reporting limit

Table 10. Metals in Soil, Fort Cronkhite Annex TPH Stain Sampling

Analyte	Residential Human Health PRG (mg/kg)	Proposed Special-Status PRG (mg/kg)	Background Concentration for Chert (mg/kg)	Sample Location (mg/kg)			
				FCA-TPH (1.0)	FCA-TPH (2.0)	FCA-TPH (2.5)	FCA-TPH (3.0)
Antimony	29	5	3.0	<1.8	<1.9	<1.8	<1.9
Arsenic	0.36	10	11 ¹	4.2	<3.9	4.4	<3.8
Barium	5,000	320	900	190	260	150	180
Beryllium	140	10	0.72	<0.36	<0.39	0.55	0.55
Cadmium	1.7	0.017	1.7	0.58	0.52	<0.46	<0.48
Chromium	1,200	4	41	36	33	21	25
Cobalt	4,000	20	37	20	22	10	7.8
Copper	NA	30	360	44	62	18	17
Lead	400	160	45	21	19	11	9.5
Mercury	20	0.4	0.2	0.59	0.21	0.052	0.042
Molybdenum	360	12	2.0	<1.8	<1.9	<1.8	<1.9
Nickel	1,400	30	71	31	34	29	25
Selenium	360	0.2	0.5	<3.6	<3.9	<3.7	<3.8
Silver	360	2	1.0	<0.91	<0.97	<0.92	<0.96
Thallium	5.7	0.15	1.0	<1.8	<1.9	<1.8	<1.9
Vanadium	650	2	61	66	73	30	34
Zinc	22,000	4	120	98	53	40	30

Notes:

1 = Regional background concentration for arsenic ([Duverge, 2011](#)).

mg/kg = milligrams per kilogram

NA = not applicable

PRG = preliminary remediation goal

< = not detected at concentration greater than reporting limit

Appendix A. Photographic Log



Photograph A-1: Soil sampling at Smith Road, facing south.
Golden Gate National Recreation Area, CA
Photographed by: Tiffany Angus (ERRG)

Date: May 21, 2012



Photograph A-2: Stockpile two, Rifle Range, facing north.
Golden Gate National Recreation Area, CA
Photographed by: Tiffany Angus (ERRG)

Date: May 31, 2012



Photograph A-3: Largest TPH stain at Fort Cronkhite Annex, facing north.
Golden Gate National Recreation Area, CA

Photographed by: Tiffany Angus (ERRG)

Date: May 24, 2012



Photograph A-4: Impacted soils at 2 feet below ground surface, largest TPH stain at Fort Cronkhite Annex, facing down. .

Golden Gate National Recreation Area, CA

Photographed by: Tiffany Angus (ERRG)

Date: May 24, 2012



Photograph A-5: TPH staining below equipment at Fort Cronkhite Annex, facing west.
Golden Gate National Recreation Area, CA
Photographed by: Tiffany Angus (ERRG)

Date: May 24, 2012



Photograph A-7: TPH staining at Fort Cronkhite Annex, facing west.
Golden Gate National Recreation Area, CA
Photographed by: Tiffany Angus (ERRG)

Date: May 24, 2012

Appendix B. Presidio Preliminary Remediation Goals

**TABLE 7-2
SUMMARY OF SELECTION OF PRELIMINARY REMEDIATION GOALS AND PROPOSED CLEANUP LEVELS FOR NON-PETROLEUM COMPOUNDS IN SOIL**

Presidio of San Francisco, California

Potential Chemical of Concern	Ecological						Human Health			Lithology				Notes (f)		
	Summary of Plant and Soil Fauna PRGs (mg/kg); (a)			Summary of Wildlife PRGs (mg/kg); (a)			Proposed Buffer Zone PRGs (mg/kg); (b)	Proposed Special Status PRGs (mg/kg); (c)	Proposed PRGs (mg/kg); (d)			Presidio Background Metals Concentrations by Lithology (mg/kg); (e)				
	PRG _{low}	PRG _{high}	Arithmetic Mean	PRG _{low}	PRG _{high}	Arithmetic Mean			Residential	Recreational	Comm/Ind.	Serpentinite	Colma		Beach/Dune	Chert/Shale
Inorganic Chemicals																
Antimony	5	5	5	162	490	326	5	5	29	70	760	3.0 ^(DL)	3.0 ^(DL)	3.0 ^(DL)	3.0 ^(DL)	1
Arsenic	10	224	117	46	692	369	64 (g)	10	0.36	0.88	3.3	5.4 ^(95th)	6.2 ^(UCL95)	5.9 ^(UCL95)	3.2 ^(Max)	2
Barium	500	500	500	320	3,200	1,760	500	320	5,000	12,000	130,000	230 ^(95th)	180 ^(UCL95)	120 ^(UCL95)	900 ^(UCL95)	3
Beryllium	10	10	10	160	8,000	4,080	10	10	140	350	3,800	1.1 ^(Max)	0.99 ^(UCL95)	0.89 ^(UCL95)	0.72 ^(UCL95)	1
Cadmium	4	100	52	0.017	0.44	0.23	0.23	0.017	1.7	4.2	16	1.9 ^(Max)	0.8 ^(DL)	1.7 ^(Max)	1.7 ^(Max)	2
Chromium	5	200	103	4	42	23	23	4	1,200 (h)	2,800 (h)	11,000 (h)	1,700 ^(95th)	140 ^(UCL95)	120 ^(UCL95)	41 ^(UCL95)	2
Cobalt	20	75	48	220	3,300	1,760	48	20	4,000	10,000	110,000	170 ^(95th)	21 ^(UCL95)	16 ^(UCL95)	37 ^(UCL95)	3
Copper	50	400	225	30	200	115	120	30	- (i)	-	-	85 ^(95th)	49 ^(UCL95)	43 ^(UCL95)	360 ^(UCL95)	3
Cyanide	-	-	-	6,298	18,894	12,596	13,000	6,300	1,000	2,500	23,000	-	-	-	-	4
Lead (j)	-	-	-	-	-	-	300	160	400	500	3,500	66 ^(95th)	7.5 ^(UCL95)	57 ^(UCL95)	45 ^(Max)	1
Tetraethyl Lead	-	-	-	1.1	52	27	27	1.1	0.0052	0.013	0.11	-	-	-	-	4
Mercury	0.3	10	5.15	0.038	12	6	1.6 (g)	0.4 (k)	20	52	570	0.2 ^(DL)	0.2 ^(DL)	0.2 ^(DL)	0.2 ^(DL)	1
Molybdenum	-	-	-	11.5	582	297	300	12	360	870	9,400	2.0 ^(DL)	2.0 ^(DL)	2.0 ^(DL)	2.0 ^(DL)	1
Nickel	30	500	265	58	1,440	749	71 (g)	30	1,400	3,500	38,000	4,500 ^(95th)	110 ^(UCL95)	70 ^(UCL95)	71 ^(UCL95)	2
Selenium	1	70	35.5	0.20	2	1	1.1	0.2	360	870	9,400	0.5 ^(DL)	0.5 ^(DL)	0.75 ^(Max)	0.5 ^(DL)	1
Silver	2	2	2	6	144	75	2	2	360	870	9,400	1.7 ^(Max)	1.0 ^(DL)	1.0 ^(DL)	1.0 ^(DL)	1
Thallium	1	1	1	0.15	39	20	1	0.15	5.7	14	150	1.0 ^(DL)	1.0 ^(DL)	1.0 ^(DL)	1.0 ^(DL)	2
Vanadium	2	20	11	2	8	5	5	2	650	1,600	17,000	74 ^(95th)	90 ^(UCL95)	92 ^(UCL95)	61 ^(UCL95)	2
Zinc	50	864	457	4	97	51	50	4	22,000	52,000	570,000	160 ^(95th)	60 ^(UCL95)	66 ^(UCL95)	120 ^(UCL95)	2
Semivolatile Organic Compounds																
Acenaphthene	30	50	40	84	2,547	1,316	40	30	2,700	6,600	55,000	-	-	-	-	1
Acenaphthylene	30	50	40	84	2,547	1,316	40	30	-	-	-	-	-	-	-	1
Anthracene	30	50	40	84	2,547	1,316	40	30	14,000	33,000	280,000	-	-	-	-	1
Benzo(a)anthracene	30	50	40	84	2,547	1,316	40	30	0.27	0.65	2.3	-	-	-	-	4
Benzo(a)pyrene	30	50	40	84	2,547	1,316	40	30	0.027	0.065	0.23	-	-	-	-	4
Benzo(b)fluoranthene	30	50	40	84	2,547	1,316	40	30	0.27	0.65	2.3	-	-	-	-	4
Benzo(g,h,i)perylene	30	50	40	84	2,547	1,316	40	30	-	-	-	-	-	-	-	1
Benzo(k)fluoranthene	30	50	40	84	2,547	1,316	40	30	0.27	0.65	2.3	-	-	-	-	4
Benzyl Alcohol	-	-	-	1	164	83	40 (l)	1	14,000	38,000	280,000	-	-	-	-	1
Chrysene	30	50	40	84	2,547	1,316	40	30	2.7	6.5	23	-	-	-	-	4
Dibenzo(a,h)anthracene	30	50	40	84	2,547	1,316	40	30	0.078	0.19	0.67	-	-	-	-	4
Dibenzofuran	-	-	-	-	-	-	-	-	910	2,200	18,000	-	-	-	-	4
Fluoranthene	30	50	40	84	2,547	1,316	40	30	1,800	4,400	37,000	-	-	-	-	1
Fluorene	30	50	40	84	2,547	1,316	40	30	1,800	4,400	37,000	-	-	-	-	1

**TABLE 7-2
SUMMARY OF SELECTION OF PRELIMINARY REMEDIATION GOALS AND PROPOSED CLEANUP LEVELS FOR NON-PETROLEUM COMPOUNDS IN SOIL**

Presidio of San Francisco, California

Potential Chemical of Concern	Ecological						Human Health			Lithology				Notes (f)		
	Summary of Plant and Soil Fauna PRGs (mg/kg); (a)			Summary of Wildlife PRGs (mg/kg); (a)			Proposed Buffer Zone PRGs (mg/kg); (b)	Proposed Special Status PRGs (mg/kg); (c)	Proposed PRGs (mg/kg); (d)			Presidio Background Metals Concentrations by Lithology (mg/kg); (e)				
	PRG _{low}	PRG _{high}	Arithmetic Mean	PRG _{low}	PRG _{high}	Arithmetic Mean			Residential	Recreational	Comm/Ind.	Serpentinite	Colma		Beach/Dune	Chert/Shale
Semivolatile Organic Compounds																
Indeno(1,2,3-cd)pyrene	30	50	40	84	2,547	1,316	40	30	0.27	0.65	2.3	-	-	-	-	4
2-methylnaphthalene	30	50	40	84	2,547	1,316	40	30	-	-	-	-	-	-	-	1
4-methylphenol (p-Cresol)	50	50	50	11,167	55,782	33,474	50	50	260	640	5,600	-	-	-	-	1
Naphthalene	30	50	40	84	2,547	1,316	40	30	910	2,200	18,000	-	-	-	-	1
n-nitrosodiphenylamine	20	109	65	16,981	50,942	33,962	65	20	43	104	380	-	-	-	-	5
Pentachlorophenol	3	4	3.5	22	660	341	3.5	3	5	12	42	-	-	-	-	1
Phenanthrene	30	50	40	84	2,547	1,316	40	30	-	-	-	-	-	-	-	1
Phenol	30	188	109	2,547	7,641	5,094	109	30	27,000	76,000	550,000	-	-	-	-	1
Pyrene	30	50	40	84	2,547	1,316	40	30	1,400	3,300	28,000	-	-	-	-	1
Volatile Organic Compounds																
Acetone	-	-	-	8,490	127,356	67,923	68,000	8,500	0.24 (m)	0.24 (m)	0.24 (m)	-	-	-	-	4
2-butanone (MEK)	-	-	-	4,245	25,471	14,858	15,000	4,200	3.8 (m)	3.8 (m)	3.8 (m)	-	-	-	-	4
Carbon disulfide	-	-	-	934	28,018	14,476	14,000	934	200 (m)	200 (m)	200 (m)	-	-	-	-	4
1,4-dichlorobenzene	20	128	74	2,123	12,736	7,429	74	20	0.13 (m)	0.59 (m)	0.49 (m)	-	-	-	-	4
p-isopropyltoluene (p-cymene)	200 (n)	1,000 (n)	600 (n)	2,207 (n)	22,075 (n)	12,141 (n)	600 (n)	200 (n)	130 (m)	130 (m)	130 (m)	-	-	-	-	4
Methylene Chloride	-	-	-	459	34,377	17,418	17,000	459	0.076 (m)	0.076 (m)	0.076 (m)	-	-	-	-	4
1,2,3-trichlorobenzene (o)	20	115	67.5	-	-	-	68	20	15 (m)	15 (m)	15 (m)	-	-	-	-	4
1,2,4-trichlorobenzene	20	127	73.5	-	-	-	74	20	15 (m)	15 (m)	15 (m)	-	-	-	-	4
Trichlorofluoromethane	-	-	-	-	-	-	-	-	40 (m)	80 (m)	80 (m)	-	-	-	-	4
1,1,1-trichloroethane	-	-	-	9,679	1,451,858	730,768	730,000	9,700	8 (m)	8 (m)	8 (m)	-	-	-	-	4
PCBs, Pesticides, and Herbicides																
PCBs (Arochlor 1254)	40	240	140	0.010	0.45	0.23	0.23	0.033	0.16	0.39	1 (p)	-	-	-	-	1
Aldrin	-	-	-	0.0039	0.19	0.1	0.1	0.0039	0.029	0.07	0.26	-	-	-	-	5
alpha-BHC	-	-	-	0.062	9.8	4.9	2.4 (g)	0.062	0.18	0.44	1.6	-	-	-	-	5
beta-BHC	-	-	-	0.062	9.8	4.9	2.4 (g)	0.062	0.32	0.79	2.9	-	-	-	-	5
delta-BHC	-	-	-	0.062	9.8	4.9	2.4 (g)	0.062	0.18	0.44	1.6	-	-	-	-	5
Chlordane	-	-	-	0.0090	0.071	0.04	0.04	0.0090	0.37	0.91	3.4	-	-	-	-	1
2,4-D	-	-	-	-	-	-	5	0.025	620	1,500	15,000	-	-	-	-	1
Dicamba	-	-	-	-	-	-	5	0.01	1,800	4,500	44,000	-	-	-	-	1
4,4'-DDD	40	200	120	0.049	2.4	1.2	0.53 (g)	0.049	2.0	4.9	18	-	-	-	-	1
4,4'-DDE	40	200	120	0.098	2.4	1.3	0.61 (g)	0.098	1.4	3.5	13	-	-	-	-	1
4,4'-DDT	40	200	120	0.0082	2.4	1.2	0.53 (g)	0.0082	1.4	3.5	13	-	-	-	-	1
Dieldrin	50	100	75	0.039	0.48	0.26	0.26	0.039	0.030	0.074	0.27	-	-	-	-	5
Endosulfan	-	-	-	1.1	5.5	3.3	3.3	1.1	370	900	8,700	-	-	-	-	1
Endosulfan Sulfate (o)	-	-	-	1.1	5.5	3.3	3.3	1.1	370	900	8,700	-	-	-	-	1
Endrin	-	-	-	0.0035	0.50	0.25	0.11 (g)	0.004	18	45	440	-	-	-	-	1
Endrin Aldehyde (o)	-	-	-	0.0035	0.50	0.25	0.11 (g)	0.004	18	45	440	-	-	-	-	1
Endrin Ketone (o)	-	-	-	0.0035	0.50	0.25	0.11 (g)	0.004	18	45	440	-	-	-	-	1

**TABLE 7-2
SUMMARY OF SELECTION OF PRELIMINARY REMEDIATION GOALS AND PROPOSED CLEANUP LEVELS FOR NON-PETROLEUM COMPOUNDS IN SOIL**

Presidio of San Francisco, California

Potential Chemical of Concern	Ecological						Human Health			Lithology				Notes (f)		
	Summary of Plant and Soil Fauna PRGs (mg/kg); (a)			Summary of Wildlife PRGs (mg/kg); (a)			Proposed Buffer Zone PRGs (mg/kg); (b)	Proposed Special Status PRGs (mg/kg); (c)	Proposed PRGs (mg/kg); (d)			Presidio Background Metals Concentrations by Lithology (mg/kg); (e)				
	PRG _{low}	PRG _{high}	Arithmetic Mean	PRG _{low}	PRG _{high}	Arithmetic Mean			Residential	Recreational	Comm/Ind.	Serpentinite	Colma		Beach/Dune	Chert/Shale
PCBs, Pesticides, and Herbicides																
gamma-BHC (Lindane)	-	-	-	0.010	1.6	0.8	0.37 (g)	0.010	0.44	1.1	4.0	-	-	-	-	5
Heptachlor	-	-	-	0.017	7.4	3.7	3.7	0.017	0.12	0.29	1.1	-	-	-	-	5
Heptachlor Epoxide	-	-	-	0.017	7.4	3.7	3.7	0.017	0.088	0.21	0.79	-	-	-	-	5
Isodrin (o)	-	-	-	0.0039	0.19	0.1	0.1	0.0039	0.029	0.069	0.26	-	-	-	-	5
MCPP	-	-	-	-	-	-	-	5.0	-	-	-	-	-	-	-	1
Methoxychlor	-	-	-	0.44	35	18	18	0.44	310	750	7,300	-	-	-	-	1

Notes:

- (a) Listed in these columns are the following: (1) the plant and soil fauna represent the low and high Preliminary Remediation Goals ("PRGs") from Tables 5-12 and 5-13; (2) the wildlife PRG_{low} represents the lowest of the wildlife PRG_{low} from Table 5-12; and (3) the wildlife PRG_{high} represents the lowest of the wildlife PRG_{high} from Table 5-13.
- (b) The buffer zone PRG proposed for protection of non-special status species is the lowest of the arithmetic mean of plant and soil fauna PRGs, the arithmetic mean of wildlife PRGs, the special status PRGs identified in Table 5-21, or 5 mg/kg for pesticides or herbicides for which not enough toxicological data exist to calculate a PRG_{low} and PRG_{high} (e.g., 2,4-D, Dicamba, and MCPP).
- (c) Values are proposed as soil PRGs for special status species. The special status PRG, as used in this document, is established as the PRG_{low}. *Italics* indicates that the laboratory detection limit exceeds the PRG_{low}, and thus is selected as the cleanup level. The laboratory detection limit is also used as the special status PRG for pesticides and herbicides for which not enough toxicological data exist to calculate ecological PRGs.
- (d) The human health PRGs proposed for residential, recreational, and commercial/industrial land use are from Tables 4-3, 4-4, and 4-5, respectively. For VOCs, the human health PRGs are from Table 4-7.
- (e) The following abbreviations are used in the Background Metals columns:
DL - Detection Limit: A typical detection limit is included when there were insufficient data to calculate a 95% upper confidence level ("UCL") of the 95th percentile (e.g., fewer than 50% detections).
Max: Maximum concentration detected in background samples of this lithology (threshold level when there are fewer than 50% detections).
95th: The concentration corresponding to the 95th percentile of the lognormal data distribution calculated for data sets with a frequency of detection greater than 50%. Applied to serpentinite only due to small number of data in background data set.
UCL95: The concentration corresponding to the 95% UCL of the 95th percentile of the lognormal data distribution.
- (f) In general, the cleanup levels are the minimum of applicable buffer zone ecological, ecological special status, and human health values, above background concentrations. Unless otherwise noted, for a given site, only applicable columns would be used to select the appropriate cleanup level. For example, ecological cleanup levels would not be applied to a site that is classified as only recreational human land use.
- Cleanup level governed by ecological values.
 - Cleanup level governed by background metals concentrations.
 - Cleanup level governed by ecological values or background metal concentration, depending on lithology.
 - Cleanup level governed by human health values.
 - Cleanup level governed by ecological values or human health values, depending on land use.
- (g) For these chemicals, which have a large difference (greater than one order of magnitude) between PRG_{low} and PRG_{high}, alternate PRGs were developed for special status species ("Alternate PRGs"). As discussed in note (c), special status values were ultimately established as the PRG_{low}. For the chemicals indicated, the Alternate PRG was subsequently established as the Buffer Zone PRG, in lieu of the arithmetic mean PRG.
- (h) The cleanup levels for chromium are based on the assumption that chromium (VI) comprises up to 0.28 percent of the total chromium in serpentinite at the Presidio (Montgomery Watson, 1999a).
- (i) Hyphen indicates that PRG could not be calculated due to lack of applicable toxicity data in available literature, or no value is appropriate.
- (j) Ecological PRGs for lead were calculated through use of the Monte Carlo method. The residential cleanup level for lead in soil has been established as a not-to-exceed value of 400 mg/kg, based on chemical-specific ARARs and a maximum average concentration of 370 mg/kg, based on the site-specific PRG. Refer to text for discussion of methodology used to derive the ecological and human health PRGs for lead.
- (k) Mercury level for special status species is based on risk management concerns and is established at 2 times the typical method detection limit.
- (l) For benzyl alcohol, the buffer zone PRG was decreased from the wildlife arithmetic mean PRG to be more in line with the other semivolatile organic compounds.

TABLE 7-2
SUMMARY OF SELECTION OF PRELIMINARY REMEDIATION GOALS AND PROPOSED CLEANUP LEVELS FOR NON-PETROLEUM COMPOUNDS IN SOIL

Presidio of San Francisco, California

Notes (continued):

- (m) For VOCs, human health cleanup levels were calculated using the more stringent of Risk-based Screening Levels based on the protection of groundwater quality, direct contact with soil, or vapor intrusion of VOCs into indoor air. The calculations are described in Section 4.2.9 of this document.
- (n) For ecological PRGs only, toluene was used as a surrogate for isopropyltoluene.
- (o) For human health PRGs only, values for 1,2,4-trichlorobenzene were used for 1,2,3-trichlorobenzene. For all PRGs, values for Endosulfan were used for Endosulfan Sulfate, values for Endrin were used for Endrin Aldehyde and Endrin Ketone. Isodrin is an isomer of Aldrin; for all PRGs values for Aldrin were used for Isodrin.
- (p) Human health cleanup level of 1 mg/kg for polychlorinated biphenyls in soil obtained from Title 40 of the Code of Federal Regulations §761.61 to Subpart D of Toxic Substances Control Act ("TSCA"). Human health PRGs for PCBs in soil in commercial/industrial land use calculated with the same assumptions as the other chemicals is 1.4 mg/kg, as shown in Table 4-5. The TSCA value of 1 mg/kg is considered protective of human health and conservative, as it corresponds to an estimated lifetime incremental cancer risks of 7×10^{-7} , which is below U.S. EPA's acceptable risk range of 10^{-4} to 10^{-6} .

**TABLE 7-5
HUMAN HEALTH AND ECOLOGICAL CLEANUP LEVELS FOR PETROLEUM HYDROCARBONS AND CONSTITUENTS IN
SOIL AND SEDIMENT AT THE PRESIDIO OF SAN FRANCISCO**

Presidio of San Francisco, California

Potential Chemical of Concern	Protection of Human Health			Protection of Ecological Receptors			Protection of Groundwater Resources					
							Cleanup Level for Soil to Maintain Drinking Water Standard in Groundwater		Cleanup Level for Soil to Maintain Non-detectable Concentration in Groundwater in Lobos Creek Basin		Cleanup Level for Soil at Crissy Field	
	Residential (mg/kg); (a)	Recreational (mg/kg); (a)	Maintenance (mg/kg); (a)	Terrestrial Receptors (mg/kg); (a)	Freshwater Aquatic Organisms (mg/kg); (b)	Saltwater Aquatic Organisms (mg/kg); (c)	Less than 5 feet Above Groundwater (mg/kg); (a)	Greater than 5 feet Above Groundwater (mg/kg); (a)	Less than 5 feet Above Groundwater (mg/kg); (a)	Greater than 5 feet Above Groundwater (mg/kg); (a)	Less than 5 feet Above Groundwater (mg/kg); (a)	Greater than 5 feet Above Groundwater (mg/kg); (a)
Inorganic Chemicals												
Lead	-	-	-	50 (d)	-	-	-	-	-	-	-	-
Semivolatile Organic Compounds												
Anthracene	5,900	13,800	17,800	-	-	-	308	-	0.05	-	1,120	-
Benzo(a)anthracene	0.43	1	1.5	-	-	-	8	-	0.2	-	23	-
Benzo(a)pyrene	0.04	0.1	0.15	0.3	-	-	3	-	0.8	-	9	-
Benzo(b)fluoranthene	0.43	1	1.5	-	-	-	23	-	0.6	-	64	-
Benzo(g,h,i)perylene	620	1,400	1,700	-	-	-	5,040	-	2	-	19,500	-
Benzo(k)fluoranthene	0.43	1	1.5	-	-	-	23	-	0.6	-	64	-
Chrysene	4.3	10	15	-	-	-	54	-	0.3	-	151	-
Fluoranthene	820	1,900	2,300	-	-	-	316	-	0.05	-	1,160	-
Fluorene	770	1,800	2,300	-	-	-	60	-	0.05	-	220	-
Naphthalene	480	1,100	2,300	-	-	-	9	-	0.05	-	140	-
Phenanthrene	600	1,400	1,700	-	-	-	86	-	0.05	-	410	-
Total Carcinogenic PAHs	5.6	13	19.7	-	-	-	111	-	2.5	-	253	-
Pyrene	620	1,400	1,700	-	-	-	241	-	0.09	-	910	-
Petroleum Hydrocarbons and Constituents												
TPH (as diesel); (e)	1,380	3,200	6,700	700	144 (f); (g)	144 (f)	115	15,000	7	15,000	1,950	15,000
TPH (as gasoline)	1,030	2,400	5,900	610	140	11.6	100	5,000	7	5,000	1,690	5,000
TPH (as fuel oil) (h)	1,900	4,500	9,400	980	144 (g)	144	160	15,000	10	15,000	2,730	15,000
Benzene	0.6	1.5	5	40	0.79	50	0.005	140	0.005	140	1	140
Ethylbenzene	840	1,900	6,600	125	15	5	13	60	0.009	60	19	60
Toluene	530	1,200	12,800	270	3	260	1	420	0.005	420	14	420
Total Xylenes	1,080	2,500	109,000	55	5.7	22	33	180	0.009	180	4,340	180

TABLE 7-5
HUMAN HEALTH AND ECOLOGICAL CLEANUP LEVELS FOR PETROLEUM HYDROCARBONS AND CONSTITUENTS IN
SOIL AND SEDIMENT AT THE PRESIDIO OF SAN FRANCISCO

Presidio of San Francisco, California

Notes:

- (a) Cleanup level values listed are obtained from Tables 1 through 5 of California Environmental Protection Agency, Regional Water Quality Control Board, San Francisco Bay Region Order No. 96-070, *Site Cleanup Requirements for the Cleanup of Petroleum Impacted Soils, U.S. Army, Presidio of San Francisco, California*, dated 15 May 1996.
- (b) Cleanup level values listed are point-of-compliance concentrations for freshwater sediment obtained from Tables 5 and 6 of Montgomery Watson *Development of Point of Compliance Concentrations (POCCs) for Gasoline in Surface Waters and Sediments of the Proposed Freshwater Stream*, dated May 1999. Locations apply to Freshwater Ecological Protection Zones shown on Figure 7-2.
- (c) Cleanup level values listed are point-of-compliance concentrations for saltwater sediment obtained from Table 16 of International Technology Corporation *Report of Petroleum Hydrocarbon Bioassay and Point-of-Compliance Concentration Determinations Saltwater Ecological Protection Zone, Presidio of San Francisco*, dated December 1997. Locations apply to Saltwater Ecological Protection Zones shown on Figure 7-2.
- (d) According to Order No. 96-070, the value for lead applies only to cleanup of leaded gasoline releases and not from releases from other sources. Order No. 96-070 states that an alternative cleanup level can be derived for protection of ecological receptors from releases of lead other than leaded gasoline. Refer to Tables 7-2 through 7-4 for ecological cleanup level values that apply to releases of lead not from leaded gasoline.
- (e) Total petroleum hydrocarbons ("TPH").
- (f) Although value is derived for fuel oil, adoption of this cleanup level for TPH (as diesel) has been tentatively approved by RWQCB.
- (g) Although value is derived for saltwater aquatic organisms, this cleanup level is also being used for freshwater organisms.
- (h) These values also apply to TPH quantified as motor oil.

Appendix C. NPS Soil Reuse Memorandum



National Park Service
U.S. Department of the Interior

Golden Gate
National Recreation
Area

Fort Mason, Building 201
San Francisco CA
94123

(415) 561-4731 phone
(415) 561-4727 fax

Golden Gate NRA – Environmental Programs Office

Memorandum

Date: July 23, 2012

To: Bunker and Mitchell Roads and Alexander Avenue Soil Investigation Report

From: Viktoriya Sirova, Environmental Protection Specialist

Subject: Project Headlands Phase II Soil Reuse Determination

Upon our evaluation and analysis of the sampling results associated with this project, the following soil reuse determinations were made.

1. The established Presidio background levels for metals were used to compare metals data resulting from this sampling project. Evaluating soil type for the sampled material was part of the project's scope. Consequently, it became evident that the soils encountered during the sampling activities included a combination of chert soils and clay soils. Metals background for clay soils within the Presidio was not established. Therefore, a direct comparison of the data collected to the Presidio background metal values is not feasible. Upon further evaluation of the metal data collected, it is our belief that the majority of the sample data most likely represents background due to minimum variability and consistency across all sites. In addition, none of the metals data (except for Arsenic), is above the Presidio human health Preliminary Remediation Goals (PRGs) and therefore unrestricted use of the soils seems appropriate. With regards to arsenic values, see Section 3.1.2 of the After Action report for additional information.
2. Soils that tested above ecological PRGs (including terrestrial receptors and freshwater and saltwater organisms) but below human health PRGs for petroleum hydrocarbons can be reused within Golden Gate National Recreation Area (GGNRA) only in those areas where the end use does not involve terrestrial and freshwater and saltwater ecological receptors. The soils that fall under this category include several samples taken at Annex Parking Lot (Sample ID FCA-SS-01, FCA-SS-02, FCA-SS-09, FCA-SS-10, and FCA-SS-11), Rifle Range Stockpiles (Sample ID RR-SS-01 and RR-SS-02), and the east side of Smith Road Lot (Sample ID SR-SS-08, SR-SS-12, and SR-SS-13). Note that none of these samples tested above terrestrial receptors PRGs. Those areas where data is above human health PRGs (i.e. petroleum stains at the Annex Parking Lot (Sample ID FCA-TPH(1) and FCA-TPH)) shall be removed and disposed of in accordance with all applicable Federal and State laws and regulations. Confirmation sampling will be conducted to ensure complete removal of impacted soils above human health PRGs.

Appendix D. Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-42247-1

Client Project/Site: Bunker Rd-Marin Headlands

Revision: 1

For:

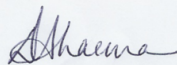
Engineering Remediation Resources Group.

115 Sansome Street

Suite 200

San Francisco, California 94104

Attn: Tiffany Angus



Authorized for release by:

6/6/2012 5:31:05 PM

Dimple Sharma

Project Manager I

dimple.sharma@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Definitions/Glossary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marin Headlands

TestAmerica Job ID: 720-42247-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Job ID: 720-42247-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-42247-1

Comments

No additional comments.

Receipt

The samples were received on 5/21/2012 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Except:

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): (#22) SR-SS-10 (1.5)-B @ 13:30. The container labels lists SR-SS-10 (1.0)-B @ 13:30. The COC lists SR-SS-10 (1.5)-B.

Sample time on (#16) SR-SS-03 (1.0)-A on container 14:25, COC lists 14:35.

Sample time on (#26) SR-SS-04 (1.0)-A on container 14:33, COC lists 14:35.

Logged diesel w/silica gel per client and labeled per email from client

GC/MS VOA

Method 8260B: Internal standard responses were outside of acceptance limits for the following sample 42247-21. The sample shows evidence of matrix interference and confirmed by reanalysis.

No other analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Narrative

Job Narrative
720-42247-2

Comments

No additional comments.

Receipt

The samples were received on 5/21/2012 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Except:

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): (#22) SR-SS-10 (1.5)-B @ 13:30. The container labels lists SR-SS-10 (1.0)-B @ 13:30. The COC lists SR-SS-10 (1.5)-B.

Sample time on (#16) SR-SS-03 (1.0)-A on container 14:25, COC lists 14:35.

Sample time on (#26) SR-SS-04 (1.0)-A on container 14:33, COC lists 14:35.

General Chemistry

Case Narrative

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Job ID: 720-42247-1 (Continued)

Laboratory: TestAmerica Pleasanton (Continued)

No analytical or quality issues were noted.

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Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-01(1.0)-1A

Lab Sample ID: 720-42247-1

No Detections

Client Sample ID: SR-SS-01-A,B,C,D

Lab Sample ID: 720-42247-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.2		1.1		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Barium	350		2.2		mg/Kg	4	☼	6010B	Total/NA
Chromium	47		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	20		0.90		mg/Kg	4	☼	6010B	Total/NA
Copper	33		6.7		mg/Kg	4	☼	6010B	Total/NA
Lead	15		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	29		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	93		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	40		6.7		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.090		0.010		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: SR-SS-09 (1.0)-A

Lab Sample ID: 720-42247-6

No Detections

Client Sample ID: SR-SS-09-A,B,C,D

Lab Sample ID: 720-42247-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	480		2.1		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.47		0.43		mg/Kg	4	☼	6010B	Total/NA
Chromium	51		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	22		0.86		mg/Kg	4	☼	6010B	Total/NA
Copper	30		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	9.7		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	40		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	51		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	31		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.060		0.010		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: SR-SS-02 (1.0)-A

Lab Sample ID: 720-42247-11

No Detections

Client Sample ID: SR-SS-02-A,B,C,D

Lab Sample ID: 720-42247-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	4.3		1.1		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Barium	440		2.2		mg/Kg	4	☼	6010B	Total/NA
Chromium	35		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	15		0.88		mg/Kg	4	☼	6010B	Total/NA
Copper	90		6.6		mg/Kg	4	☼	6010B	Total/NA
Lead	65		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	35		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	62		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	120		6.6		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.088		0.011		mg/Kg	1	☼	7471A	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-03 (1.0)-A

Lab Sample ID: 720-42247-16

No Detections

Client Sample ID: SR-SS-03-A,B,C,D

Lab Sample ID: 720-42247-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	8.8		1.2		mg/Kg	1		*	8015B	Silica Gel Cleanup
Barium	440		2.3		mg/Kg	4		*	6010B	Total/NA
Beryllium	0.47		0.47		mg/Kg	4		*	6010B	Total/NA
Chromium	55		2.3		mg/Kg	4		*	6010B	Total/NA
Cobalt	23		0.94		mg/Kg	4		*	6010B	Total/NA
Copper	39		7.0		mg/Kg	4		*	6010B	Total/NA
Lead	24		2.3		mg/Kg	4		*	6010B	Total/NA
Nickel	31		2.3		mg/Kg	4		*	6010B	Total/NA
Vanadium	98		2.3		mg/Kg	4		*	6010B	Total/NA
Zinc	57		7.0		mg/Kg	4		*	6010B	Total/NA
Mercury	0.10		0.011		mg/Kg	1		*	7471A	Total/NA

Client Sample ID: SR-SS-10 (1.0)-A

Lab Sample ID: 720-42247-21

No Detections

Client Sample ID: SR-SS-10-A,B,C,D

Lab Sample ID: 720-42247-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	4.4		1.1		mg/Kg	1		*	8015B	Silica Gel Cleanup
Barium	620		2.2		mg/Kg	4		*	6010B	Total/NA
Beryllium	0.54		0.45		mg/Kg	4		*	6010B	Total/NA
Chromium	45		2.2		mg/Kg	4		*	6010B	Total/NA
Cobalt	15		0.89		mg/Kg	4		*	6010B	Total/NA
Copper	41		6.7		mg/Kg	4		*	6010B	Total/NA
Lead	25		2.2		mg/Kg	4		*	6010B	Total/NA
Nickel	33		2.2		mg/Kg	4		*	6010B	Total/NA
Vanadium	56		2.2		mg/Kg	4		*	6010B	Total/NA
Zinc	57		6.7		mg/Kg	4		*	6010B	Total/NA
Mercury	0.052		0.010		mg/Kg	1		*	7471A	Total/NA

Client Sample ID: SR-SS-04 (1.0)-A

Lab Sample ID: 720-42247-26

No Detections

Client Sample ID: SR-SS-04-A,B,C,D

Lab Sample ID: 720-42247-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	330		2.3		mg/Kg	4		*	6010B	Total/NA
Chromium	49		2.3		mg/Kg	4		*	6010B	Total/NA
Cobalt	20		0.91		mg/Kg	4		*	6010B	Total/NA
Copper	28		6.8		mg/Kg	4		*	6010B	Total/NA
Lead	7.1		2.3		mg/Kg	4		*	6010B	Total/NA
Nickel	27		2.3		mg/Kg	4		*	6010B	Total/NA
Vanadium	78		2.3		mg/Kg	4		*	6010B	Total/NA
Zinc	30		6.8		mg/Kg	4		*	6010B	Total/NA
Mercury	0.069		0.011		mg/Kg	1		*	7471A	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-11 (1.0)-A

Lab Sample ID: 720-42247-31

No Detections

Client Sample ID: SR-SS-11-A,B,C,D

Lab Sample ID: 720-42247-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	24		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	120		55		mg/Kg	1	*	8015B	Silica Gel Cleanup
Barium	420		2.2		mg/Kg	4	*	6010B	Total/NA
Chromium	33		2.2		mg/Kg	4	*	6010B	Total/NA
Cobalt	15		0.90		mg/Kg	4	*	6010B	Total/NA
Copper	78		6.7		mg/Kg	4	*	6010B	Total/NA
Lead	42		2.2		mg/Kg	4	*	6010B	Total/NA
Nickel	39		2.2		mg/Kg	4	*	6010B	Total/NA
Vanadium	49		2.2		mg/Kg	4	*	6010B	Total/NA
Zinc	86		6.7		mg/Kg	4	*	6010B	Total/NA
Mercury	0.18		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-01(1.0)-1A

Lab Sample ID: 720-42247-1

Date Collected: 05/21/12 11:25

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 87.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.5		ug/Kg	☼	05/22/12 13:00	05/22/12 13:26	1
Ethylbenzene	ND		6.5		ug/Kg	☼	05/22/12 13:00	05/22/12 13:26	1
Toluene	ND		6.5		ug/Kg	☼	05/22/12 13:00	05/22/12 13:26	1
Xylenes, Total	ND		13		ug/Kg	☼	05/22/12 13:00	05/22/12 13:26	1
Gasoline Range Organics (GRO) -C5-C12	ND		320		ug/Kg	☼	05/22/12 13:00	05/22/12 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	79		45 - 131	05/22/12 13:00	05/22/12 13:26	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	05/22/12 13:00	05/22/12 13:26	1
Toluene-d8 (Surr)	95		58 - 140	05/22/12 13:00	05/22/12 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-01-A,B,C,D

Lab Sample ID: 720-42247-5

Date Collected: 05/21/12 11:25

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.2		1.1		mg/Kg	☼	05/22/12 16:12	05/23/12 12:51	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	☼	05/22/12 16:12	05/23/12 12:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1				05/22/12 16:12	05/23/12 12:51	1
p-Terphenyl	88		38 - 148				05/22/12 16:12	05/23/12 12:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Arsenic	ND		4.5		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Barium	350		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Beryllium	ND		0.45		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Cadmium	ND		0.56		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Chromium	47		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Cobalt	20		0.90		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Copper	33		6.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Lead	15		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Nickel	29		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Selenium	ND		4.5		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Vanadium	93		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4
Zinc	40		6.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:18	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.090		0.010		mg/Kg	☼	05/25/12 15:39	05/25/12 20:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-09 (1.0)-A

Lab Sample ID: 720-42247-6

Date Collected: 05/21/12 12:05

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.7		ug/Kg	☼	05/22/12 13:00	05/22/12 13:55	1
Ethylbenzene	ND		6.7		ug/Kg	☼	05/22/12 13:00	05/22/12 13:55	1
Toluene	ND		6.7		ug/Kg	☼	05/22/12 13:00	05/22/12 13:55	1
Xylenes, Total	ND		13		ug/Kg	☼	05/22/12 13:00	05/22/12 13:55	1
Gasoline Range Organics (GRO) -C5-C12	ND		340		ug/Kg	☼	05/22/12 13:00	05/22/12 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	65		45 - 131	05/22/12 13:00	05/22/12 13:55	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/22/12 13:00	05/22/12 13:55	1
Toluene-d8 (Surr)	92		58 - 140	05/22/12 13:00	05/22/12 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-09-A,B,C,D

Lab Sample ID: 720-42247-10

Date Collected: 05/21/12 12:00

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/24/12 11:52	05/25/12 01:25	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	☼	05/24/12 11:52	05/25/12 01:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.06		0 - 1				05/24/12 11:52	05/25/12 01:25	1
p-Terphenyl	67		38 - 148				05/24/12 11:52	05/25/12 01:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Arsenic	ND		4.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Barium	480		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Beryllium	0.47		0.43		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Cadmium	ND		0.54		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Chromium	51		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Cobalt	22		0.86		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Copper	30		6.4		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Lead	9.7		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Molybdenum	ND		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Nickel	40		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Selenium	ND		4.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Thallium	ND		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Vanadium	51		2.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4
Zinc	31		6.4		mg/Kg	☼	05/23/12 11:56	05/24/12 02:22	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.010		mg/Kg	☼	05/25/12 15:39	05/25/12 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-02 (1.0)-A

Lab Sample ID: 720-42247-11

Date Collected: 05/21/12 12:45

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 85.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.0		ug/Kg	☼	05/22/12 13:00	05/22/12 14:24	1
Ethylbenzene	ND		6.0		ug/Kg	☼	05/22/12 13:00	05/22/12 14:24	1
Toluene	ND		6.0		ug/Kg	☼	05/22/12 13:00	05/22/12 14:24	1
Xylenes, Total	ND		12		ug/Kg	☼	05/22/12 13:00	05/22/12 14:24	1
Gasoline Range Organics (GRO) -C5-C12	ND		300		ug/Kg	☼	05/22/12 13:00	05/22/12 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	81		45 - 131	05/22/12 13:00	05/22/12 14:24	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/22/12 13:00	05/22/12 14:24	1
Toluene-d8 (Surr)	94		58 - 140	05/22/12 13:00	05/22/12 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-02-A,B,C,D

Lab Sample ID: 720-42247-15

Date Collected: 05/21/12 12:40

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 89.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4.3		1.1		mg/Kg	☼	05/22/12 16:12	05/23/12 11:16	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	☼	05/22/12 16:12	05/23/12 11:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				05/22/12 16:12	05/23/12 11:16	1
p-Terphenyl	94		38 - 148				05/22/12 16:12	05/23/12 11:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Arsenic	ND		4.4		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Barium	440		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Beryllium	ND		0.44		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Cadmium	ND		0.55		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Chromium	35		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Cobalt	15		0.88		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Copper	90		6.6		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Lead	65		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Nickel	35		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Selenium	ND		4.4		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Vanadium	62		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4
Zinc	120		6.6		mg/Kg	☼	05/23/12 11:56	05/24/12 02:27	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.088		0.011		mg/Kg	☼	05/25/12 15:39	05/25/12 20:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-03 (1.0)-A

Lab Sample ID: 720-42247-16

Date Collected: 05/21/12 14:25

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 87.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.6		ug/Kg	☼	05/22/12 13:00	05/22/12 14:53	1
Ethylbenzene	ND		5.6		ug/Kg	☼	05/22/12 13:00	05/22/12 14:53	1
Toluene	ND		5.6		ug/Kg	☼	05/22/12 13:00	05/22/12 14:53	1
Xylenes, Total	ND		11		ug/Kg	☼	05/22/12 13:00	05/22/12 14:53	1
Gasoline Range Organics (GRO) -C5-C12	ND		280		ug/Kg	☼	05/22/12 13:00	05/22/12 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	82		45 - 131	05/22/12 13:00	05/22/12 14:53	1
1,2-Dichloroethane-d4 (Surr)	105		60 - 140	05/22/12 13:00	05/22/12 14:53	1
Toluene-d8 (Surr)	94		58 - 140	05/22/12 13:00	05/22/12 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-03-A,B,C,D

Lab Sample ID: 720-42247-20

Date Collected: 05/21/12 14:07

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	8.8		1.2		mg/Kg	☼	05/22/12 16:12	05/23/12 11:40	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	05/22/12 16:12	05/23/12 11:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.6		0 - 1				05/22/12 16:12	05/23/12 11:40	1
p-Terphenyl	109		38 - 148				05/22/12 16:12	05/23/12 11:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Arsenic	ND		4.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Barium	440		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Beryllium	0.47		0.47		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Cadmium	ND		0.59		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Chromium	55		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Cobalt	23		0.94		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Copper	39		7.0		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Lead	24		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Molybdenum	ND		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Nickel	31		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Selenium	ND		4.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Silver	ND		1.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Thallium	ND		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Vanadium	98		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4
Zinc	57		7.0		mg/Kg	☼	05/23/12 11:56	05/24/12 02:31	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.011		mg/Kg	☼	05/25/12 15:39	05/25/12 21:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-10 (1.0)-A

Lab Sample ID: 720-42247-21

Date Collected: 05/21/12 13:20

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 87.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.9		ug/Kg	☼	05/22/12 13:00	05/23/12 11:19	1
Ethylbenzene	ND		5.9		ug/Kg	☼	05/22/12 13:00	05/23/12 11:19	1
Toluene	ND		5.9		ug/Kg	☼	05/22/12 13:00	05/23/12 11:19	1
Xylenes, Total	ND		12		ug/Kg	☼	05/22/12 13:00	05/23/12 11:19	1
Gasoline Range Organics (GRO) -C5-C12	ND		290		ug/Kg	☼	05/22/12 13:00	05/23/12 11:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	56		45 - 131	05/22/12 13:00	05/23/12 11:19	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/22/12 13:00	05/23/12 11:19	1
Toluene-d8 (Surr)	88		58 - 140	05/22/12 13:00	05/23/12 11:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-10-A,B,C,D

Lab Sample ID: 720-42247-25

Date Collected: 05/21/12 13:20

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4.4		1.1		mg/Kg	☼	05/22/12 16:12	05/23/12 12:03	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	☼	05/22/12 16:12	05/23/12 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.4		0 - 1				05/22/12 16:12	05/23/12 12:03	1
p-Terphenyl	98		38 - 148				05/22/12 16:12	05/23/12 12:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Arsenic	ND		4.5		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Barium	620		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Beryllium	0.54		0.45		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Cadmium	ND		0.56		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Chromium	45		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Cobalt	15		0.89		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Copper	41		6.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Lead	25		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Nickel	33		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Selenium	ND		4.5		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Vanadium	56		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4
Zinc	57		6.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:36	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052		0.010		mg/Kg	☼	05/25/12 15:39	05/25/12 21:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-04 (1.0)-A

Lab Sample ID: 720-42247-26

Date Collected: 05/21/12 14:33

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 85.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.8		ug/Kg	☼	05/22/12 13:00	05/22/12 15:51	1
Ethylbenzene	ND		4.8		ug/Kg	☼	05/22/12 13:00	05/22/12 15:51	1
Toluene	ND		4.8		ug/Kg	☼	05/22/12 13:00	05/22/12 15:51	1
Xylenes, Total	ND		9.5		ug/Kg	☼	05/22/12 13:00	05/22/12 15:51	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg	☼	05/22/12 13:00	05/22/12 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	67		45 - 131	05/22/12 13:00	05/22/12 15:51	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140	05/22/12 13:00	05/22/12 15:51	1
Toluene-d8 (Surr)	88		58 - 140	05/22/12 13:00	05/22/12 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-04-A,B,C,D

Lab Sample ID: 720-42247-30

Date Collected: 05/21/12 14:35

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/22/12 16:12	05/23/12 12:27	1
Motor Oil Range Organics [C24-C36]	ND		57		mg/Kg	☼	05/22/12 16:12	05/23/12 12:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				05/22/12 16:12	05/23/12 12:27	1
p-Terphenyl	85		38 - 148				05/22/12 16:12	05/23/12 12:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Arsenic	ND		4.6		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Barium	330		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Beryllium	ND		0.46		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Cadmium	ND		0.57		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Chromium	49		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Cobalt	20		0.91		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Copper	28		6.8		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Lead	7.1		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Molybdenum	ND		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Nickel	27		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Selenium	ND		4.6		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Thallium	ND		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Vanadium	78		2.3		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4
Zinc	30		6.8		mg/Kg	☼	05/23/12 11:56	05/24/12 02:40	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.011		mg/Kg	☼	05/25/12 15:39	05/25/12 21:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-11 (1.0)-A

Lab Sample ID: 720-42247-31

Date Collected: 05/21/12 15:10

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.7		ug/Kg	☼	05/22/12 13:00	05/23/12 11:48	1
Ethylbenzene	ND		6.7		ug/Kg	☼	05/22/12 13:00	05/23/12 11:48	1
Toluene	ND		6.7		ug/Kg	☼	05/22/12 13:00	05/23/12 11:48	1
Xylenes, Total	ND		13		ug/Kg	☼	05/22/12 13:00	05/23/12 11:48	1
Gasoline Range Organics (GRO) -C5-C12	ND		340		ug/Kg	☼	05/22/12 13:00	05/23/12 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	65		45 - 131	05/22/12 13:00	05/23/12 11:48	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/22/12 13:00	05/23/12 11:48	1
Toluene-d8 (Surr)	91		58 - 140	05/22/12 13:00	05/23/12 11:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 11:45	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-11-A,B,C,D

Lab Sample ID: 720-42247-35

Date Collected: 05/21/12 15:10

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	24		1.1		mg/Kg	☼	05/22/12 16:12	05/23/12 12:51	1
Motor Oil Range Organics [C24-C36]	120		55		mg/Kg	☼	05/22/12 16:12	05/23/12 12:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 1				05/22/12 16:12	05/23/12 12:51	1
p-Terphenyl	77		38 - 148				05/22/12 16:12	05/23/12 12:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Arsenic	ND		4.5		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Barium	420		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Beryllium	ND		0.45		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Cadmium	ND		0.56		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Chromium	33		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Cobalt	15		0.90		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Copper	78		6.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Lead	42		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Nickel	39		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Selenium	ND		4.5		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Vanadium	49		2.2		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4
Zinc	86		6.7		mg/Kg	☼	05/23/12 11:56	05/24/12 02:45	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18		0.011		mg/Kg	☼	05/25/12 15:39	05/25/12 21:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/31/12 11:45	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-114030/1-A

Matrix: Solid

Analysis Batch: 114004

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/22/12 08:00	05/22/12 09:33	1
Ethylbenzene	ND		5.0		ug/Kg		05/22/12 08:00	05/22/12 09:33	1
Toluene	ND		5.0		ug/Kg		05/22/12 08:00	05/22/12 09:33	1
Xylenes, Total	ND		10		ug/Kg		05/22/12 08:00	05/22/12 09:33	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/22/12 08:00	05/22/12 09:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131	05/22/12 08:00	05/22/12 09:33	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	05/22/12 08:00	05/22/12 09:33	1
Toluene-d8 (Surr)	99		58 - 140	05/22/12 08:00	05/22/12 09:33	1

Lab Sample ID: LCS 720-114030/2-A

Matrix: Solid

Analysis Batch: 114004

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	50.6		ug/Kg		101	70 - 130
Ethylbenzene	50.0	50.0		ug/Kg		100	80 - 137
Toluene	50.0	49.2		ug/Kg		98	80 - 128
m-Xylene & p-Xylene	100	106		ug/Kg		106	70 - 146
o-Xylene	50.0	54.6		ug/Kg		109	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	101		60 - 140
Toluene-d8 (Surr)	104		58 - 140

Lab Sample ID: LCS 720-114030/4-A

Matrix: Solid

Analysis Batch: 114004

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	919		ug/Kg		92	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	97		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: LCSD 720-114030/3-A

Matrix: Solid

Analysis Batch: 114004

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	48.2		ug/Kg		96	70 - 130	5	20
Ethylbenzene	50.0	48.0		ug/Kg		96	80 - 137	4	20
Toluene	50.0	46.4		ug/Kg		93	80 - 128	6	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-114030/3-A

Matrix: Solid

Analysis Batch: 114004

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	100	102		ug/Kg		102	70 - 146	4	20
o-Xylene	50.0	52.6		ug/Kg		105	70 - 140	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		45 - 131
1,2-Dichloroethane-d4 (Surr)	98		60 - 140
Toluene-d8 (Surr)	104		58 - 140

Lab Sample ID: LCSD 720-114030/5-A

Matrix: Solid

Analysis Batch: 114004

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	906		ug/Kg		91	61 - 128	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	98		45 - 131
1,2-Dichloroethane-d4 (Surr)	95		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: MB 720-114104/1-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Ethylbenzene	ND		5.0		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Toluene	ND		5.0		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Xylenes, Total	ND		10		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/23/12 07:00	05/23/12 08:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131	05/23/12 07:00	05/23/12 08:34	1
1,2-Dichloroethane-d4 (Surr)	107		60 - 140	05/23/12 07:00	05/23/12 08:34	1
Toluene-d8 (Surr)	98		58 - 140	05/23/12 07:00	05/23/12 08:34	1

Lab Sample ID: LCS 720-114104/2-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.8		ug/Kg		100	70 - 130
Ethylbenzene	50.0	48.8		ug/Kg		98	80 - 137
Toluene	50.0	47.4		ug/Kg		95	80 - 128
m-Xylene & p-Xylene	100	103		ug/Kg		103	70 - 146
o-Xylene	50.0	52.8		ug/Kg		106	70 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-114104/2-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114104

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		45 - 131
1,2-Dichloroethane-d4 (Surr)	100		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: LCS 720-114104/4-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	886		ug/Kg		89	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114104/3-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	49.6		ug/Kg		99	70 - 130	0	20
Ethylbenzene	50.0	49.2		ug/Kg		98	80 - 137	1	20
Toluene	50.0	48.0		ug/Kg		96	80 - 128	1	20
m-Xylene & p-Xylene	100	104		ug/Kg		104	70 - 146	1	20
o-Xylene	50.0	52.8		ug/Kg		106	70 - 140	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	98		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114104/5-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	867		ug/Kg		87	61 - 128	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

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

Lab Sample ID: MB 720-114012/1-A

Matrix: Solid

Analysis Batch: 113997

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/22/12 09:22	05/23/12 04:01	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/22/12 09:22	05/23/12 04:01	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1				05/22/12 09:22	05/23/12 04:01	1
p-Terphenyl	97		38 - 148				05/22/12 09:22	05/23/12 04:01	1

Lab Sample ID: LCS 720-114012/2-A

Matrix: Solid

Analysis Batch: 113997

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.4	59.0		mg/Kg		72	36 - 112
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
p-Terphenyl		88		38 - 148			

Lab Sample ID: LCSD 720-114012/3-A

Matrix: Solid

Analysis Batch: 113997

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 114012

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.4	52.6		mg/Kg		64	36 - 112	11	35
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
p-Terphenyl		85		38 - 148					

Lab Sample ID: MB 720-114191/1-A

Matrix: Solid

Analysis Batch: 114169

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/24/12 11:52	05/25/12 05:28	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/24/12 11:52	05/25/12 05:28	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 11:52	05/25/12 05:28	1
p-Terphenyl	97		38 - 148				05/24/12 11:52	05/25/12 05:28	1

Lab Sample ID: LCS 720-114191/2-A

Matrix: Solid

Analysis Batch: 114169

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.3	55.5		mg/Kg		67	36 - 112

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

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

Lab Sample ID: LCS 720-114191/2-A
Matrix: Solid
Analysis Batch: 114169

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 114191

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	82		38 - 148

Lab Sample ID: LCSD 720-114191/3-A
Matrix: Solid
Analysis Batch: 114169

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 114191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	83.0	47.8		mg/Kg		58	36 - 112	15	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	68		38 - 148

Lab Sample ID: 720-42247-10 MS
Matrix: Solid
Analysis Batch: 114169

Client Sample ID: SR-SS-09-A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	ND		94.6	52.7		mg/Kg	☼	55	50 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
p-Terphenyl	59		38 - 148

Lab Sample ID: 720-42247-10 MSD
Matrix: Solid
Analysis Batch: 114169

Client Sample ID: SR-SS-09-A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		93.7	50.2		mg/Kg	☼	53	50 - 150	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
p-Terphenyl	58		38 - 148

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-114113/1-A
Matrix: Solid
Analysis Batch: 114180

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Arsenic	ND		1.0		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Barium	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Beryllium	ND		0.10		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Cadmium	ND		0.13		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Chromium	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Cobalt	ND		0.20		mg/Kg		05/23/12 11:56	05/24/12 00:42	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

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

Lab Sample ID: MB 720-114113/1-A

Matrix: Solid

Analysis Batch: 114180

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		1.5		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Lead	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Molybdenum	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Nickel	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Selenium	ND		1.0		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Silver	ND		0.25		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Thallium	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Vanadium	ND		0.50		mg/Kg		05/23/12 11:56	05/24/12 00:42	1
Zinc	ND		1.5		mg/Kg		05/23/12 11:56	05/24/12 00:42	1

Lab Sample ID: LCS 720-114113/2-A

Matrix: Solid

Analysis Batch: 114180

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	46.5		mg/Kg		93	80 - 120
Arsenic	50.0	46.5		mg/Kg		93	80 - 120
Barium	50.0	47.5		mg/Kg		95	80 - 120
Beryllium	50.0	45.6		mg/Kg		91	80 - 120
Cadmium	50.0	48.4		mg/Kg		97	80 - 120
Chromium	50.0	45.9		mg/Kg		92	80 - 120
Cobalt	50.0	47.9		mg/Kg		96	80 - 120
Copper	50.0	46.8		mg/Kg		94	80 - 120
Lead	50.0	48.0		mg/Kg		96	80 - 120
Molybdenum	50.0	48.7		mg/Kg		97	80 - 120
Nickel	50.0	48.5		mg/Kg		97	80 - 120
Selenium	50.0	45.9		mg/Kg		92	80 - 120
Silver	25.0	23.3		mg/Kg		93	80 - 120
Thallium	50.0	48.1		mg/Kg		96	80 - 120
Vanadium	50.0	45.5		mg/Kg		91	80 - 120
Zinc	50.0	47.0		mg/Kg		94	80 - 120

Lab Sample ID: LCSD 720-114113/3-A

Matrix: Solid

Analysis Batch: 114180

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114113

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	45.5		mg/Kg		91	80 - 120	2	20
Arsenic	50.0	45.4		mg/Kg		91	80 - 120	2	20
Barium	50.0	46.7		mg/Kg		93	80 - 120	2	20
Beryllium	50.0	45.6		mg/Kg		91	80 - 120	0	20
Cadmium	50.0	46.7		mg/Kg		93	80 - 120	4	20
Chromium	50.0	45.7		mg/Kg		91	80 - 120	0	20
Cobalt	50.0	46.8		mg/Kg		94	80 - 120	2	20
Copper	50.0	46.3		mg/Kg		93	80 - 120	1	20
Lead	50.0	46.7		mg/Kg		93	80 - 120	3	20
Molybdenum	50.0	47.3		mg/Kg		95	80 - 120	3	20
Nickel	50.0	47.1		mg/Kg		94	80 - 120	3	20
Selenium	50.0	44.7		mg/Kg		89	80 - 120	3	20
Silver	25.0	23.0		mg/Kg		92	80 - 120	1	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

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

Lab Sample ID: LCSD 720-114113/3-A
Matrix: Solid
Analysis Batch: 114180

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114113

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	50.0	46.9		mg/Kg		94	80 - 120	3	20
Vanadium	50.0	45.4		mg/Kg		91	80 - 120	0	20
Zinc	50.0	45.8		mg/Kg		92	80 - 120	2	20

Lab Sample ID: LCSSRM 720-114113/25-A
Matrix: Solid
Analysis Batch: 114180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114113

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	51.4	18.2		mg/Kg		35	11 - 101		
Arsenic	136	112		mg/Kg		83	69 - 119		
Barium	549	477		mg/Kg		87	61 - 117		
Beryllium	251	212		mg/Kg		85	56 - 102		
Cadmium	87.9	76.8		mg/Kg		87	67 - 118		
Chromium	135	112		mg/Kg		83	67 - 121		
Cobalt	218	189		mg/Kg		87	64 - 133		
Copper	134	115		mg/Kg		86	68 - 126		
Lead	340	280		mg/Kg		82	62 - 113		
Molybdenum	51.5	42.2		mg/Kg		82	62 - 128		
Nickel	288	246		mg/Kg		85	65 - 117		
Selenium	203	168		mg/Kg		83	63 - 126		
Silver	47.0	41.6		mg/Kg		88	51 - 130		
Thallium	44.7	33.5		mg/Kg		75	64 - 124		
Vanadium	148	122		mg/Kg		82	67 - 123		
Zinc	433	366		mg/Kg		84	62 - 110		

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-114305/1-A
Matrix: Solid
Analysis Batch: 114342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114305

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/25/12 14:49	05/25/12 20:20	1

Lab Sample ID: LCS 720-114305/2-A
Matrix: Solid
Analysis Batch: 114342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114305

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.875		mg/Kg		105	80 - 120		

Lab Sample ID: LCSD 720-114305/3-A
Matrix: Solid
Analysis Batch: 114342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114305

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.875		mg/Kg		105	80 - 120	0	20

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

GC/MS VOA

Analysis Batch: 114004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-1	SR-SS-01(1.0)-1A	Total/NA	Solid	8260B	114030
720-42247-6	SR-SS-09 (1.0)-A	Total/NA	Solid	8260B	114030
720-42247-11	SR-SS-02 (1.0)-A	Total/NA	Solid	8260B	114030
720-42247-16	SR-SS-03 (1.0)-A	Total/NA	Solid	8260B	114030
720-42247-26	SR-SS-04 (1.0)-A	Total/NA	Solid	8260B	114030
LCS 720-114030/2-A	Lab Control Sample	Total/NA	Solid	8260B	114030
LCS 720-114030/4-A	Lab Control Sample	Total/NA	Solid	8260B	114030
LCSD 720-114030/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114030
LCSD 720-114030/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114030
MB 720-114030/1-A	Method Blank	Total/NA	Solid	8260B	114030

Prep Batch: 114030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-1	SR-SS-01(1.0)-1A	Total/NA	Solid	5035	
720-42247-6	SR-SS-09 (1.0)-A	Total/NA	Solid	5035	
720-42247-11	SR-SS-02 (1.0)-A	Total/NA	Solid	5035	
720-42247-16	SR-SS-03 (1.0)-A	Total/NA	Solid	5035	
720-42247-26	SR-SS-04 (1.0)-A	Total/NA	Solid	5035	
LCS 720-114030/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114030/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114030/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114030/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114030/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 114092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-21	SR-SS-10 (1.0)-A	Total/NA	Solid	8260B	114104
720-42247-31	SR-SS-11 (1.0)-A	Total/NA	Solid	8260B	114104
LCS 720-114104/2-A	Lab Control Sample	Total/NA	Solid	8260B	114104
LCS 720-114104/4-A	Lab Control Sample	Total/NA	Solid	8260B	114104
LCSD 720-114104/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114104
LCSD 720-114104/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114104
MB 720-114104/1-A	Method Blank	Total/NA	Solid	8260B	114104

Prep Batch: 114104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-21	SR-SS-10 (1.0)-A	Total/NA	Solid	5035	
720-42247-31	SR-SS-11 (1.0)-A	Total/NA	Solid	5035	
LCS 720-114104/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114104/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114104/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114104/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114104/1-A	Method Blank	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 113997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-114012/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114012
LCSD 720-114012/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114012
MB 720-114012/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114012

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

GC Semi VOA (Continued)

Prep Batch: 114012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-5	SR-SS-01-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-15	SR-SS-02-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-20	SR-SS-03-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-25	SR-SS-10-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-30	SR-SS-04-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-35	SR-SS-11-A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114012/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114012/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114012/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-5	SR-SS-01-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114012

Analysis Batch: 114088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-15	SR-SS-02-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114012
720-42247-20	SR-SS-03-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114012
720-42247-25	SR-SS-10-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114012
720-42247-30	SR-SS-04-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114012
720-42247-35	SR-SS-11-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114012

Analysis Batch: 114169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-10	SR-SS-09-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42247-10 MS	SR-SS-09-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42247-10 MSD	SR-SS-09-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
LCS 720-114191/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114191
LCSD 720-114191/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114191
MB 720-114191/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114191

Prep Batch: 114191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-10	SR-SS-09-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-10 MS	SR-SS-09-A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42247-10 MSD	SR-SS-09-A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114191/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114191/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114191/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Metals

Prep Batch: 114113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-5	SR-SS-01-A,B,C,D	Total/NA	Solid	3050B	
720-42247-10	SR-SS-09-A,B,C,D	Total/NA	Solid	3050B	
720-42247-15	SR-SS-02-A,B,C,D	Total/NA	Solid	3050B	
720-42247-20	SR-SS-03-A,B,C,D	Total/NA	Solid	3050B	
720-42247-25	SR-SS-10-A,B,C,D	Total/NA	Solid	3050B	
720-42247-30	SR-SS-04-A,B,C,D	Total/NA	Solid	3050B	
720-42247-35	SR-SS-11-A,B,C,D	Total/NA	Solid	3050B	
LCS 720-114113/2-A	Lab Control Sample	Total/NA	Solid	3050B	

QC Association Summary

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Metals (Continued)

Prep Batch: 114113 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 720-114113/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-114113/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-114113/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-5	SR-SS-01-A,B,C,D	Total/NA	Solid	6010B	114113
720-42247-10	SR-SS-09-A,B,C,D	Total/NA	Solid	6010B	114113
720-42247-15	SR-SS-02-A,B,C,D	Total/NA	Solid	6010B	114113
720-42247-20	SR-SS-03-A,B,C,D	Total/NA	Solid	6010B	114113
720-42247-25	SR-SS-10-A,B,C,D	Total/NA	Solid	6010B	114113
720-42247-30	SR-SS-04-A,B,C,D	Total/NA	Solid	6010B	114113
720-42247-35	SR-SS-11-A,B,C,D	Total/NA	Solid	6010B	114113
LCS 720-114113/2-A	Lab Control Sample	Total/NA	Solid	6010B	114113
LCSD 720-114113/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	114113
LCSSRM 720-114113/25-A	Lab Control Sample	Total/NA	Solid	6010B	114113
MB 720-114113/1-A	Method Blank	Total/NA	Solid	6010B	114113

Prep Batch: 114305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-5	SR-SS-01-A,B,C,D	Total/NA	Solid	7471A	
720-42247-10	SR-SS-09-A,B,C,D	Total/NA	Solid	7471A	
720-42247-15	SR-SS-02-A,B,C,D	Total/NA	Solid	7471A	
720-42247-20	SR-SS-03-A,B,C,D	Total/NA	Solid	7471A	
720-42247-25	SR-SS-10-A,B,C,D	Total/NA	Solid	7471A	
720-42247-30	SR-SS-04-A,B,C,D	Total/NA	Solid	7471A	
720-42247-35	SR-SS-11-A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114305/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114305/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114305/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 114342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-5	SR-SS-01-A,B,C,D	Total/NA	Solid	7471A	114305
720-42247-10	SR-SS-09-A,B,C,D	Total/NA	Solid	7471A	114305
720-42247-15	SR-SS-02-A,B,C,D	Total/NA	Solid	7471A	114305
720-42247-20	SR-SS-03-A,B,C,D	Total/NA	Solid	7471A	114305
720-42247-25	SR-SS-10-A,B,C,D	Total/NA	Solid	7471A	114305
720-42247-30	SR-SS-04-A,B,C,D	Total/NA	Solid	7471A	114305
720-42247-35	SR-SS-11-A,B,C,D	Total/NA	Solid	7471A	114305
LCS 720-114305/2-A	Lab Control Sample	Total/NA	Solid	7471A	114305
LCSD 720-114305/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114305
MB 720-114305/1-A	Method Blank	Total/NA	Solid	7471A	114305

General Chemistry

Analysis Batch: 114552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-1	SR-SS-01(1.0)-1A	Total/NA	Solid	Moisture	
720-42247-5	SR-SS-01-A,B,C,D	Total/NA	Solid	Moisture	
720-42247-6	SR-SS-09 (1.0)-A	Total/NA	Solid	Moisture	
720-42247-10	SR-SS-09-A,B,C,D	Total/NA	Solid	Moisture	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

General Chemistry (Continued)

Analysis Batch: 114552 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42247-11	SR-SS-02 (1.0)-A	Total/NA	Solid	Moisture	
720-42247-15	SR-SS-02-A,B,C,D	Total/NA	Solid	Moisture	
720-42247-16	SR-SS-03 (1.0)-A	Total/NA	Solid	Moisture	
720-42247-20	SR-SS-03-A,B,C,D	Total/NA	Solid	Moisture	
720-42247-21	SR-SS-10 (1.0)-A	Total/NA	Solid	Moisture	
720-42247-25	SR-SS-10-A,B,C,D	Total/NA	Solid	Moisture	
720-42247-26	SR-SS-04 (1.0)-A	Total/NA	Solid	Moisture	
720-42247-30	SR-SS-04-A,B,C,D	Total/NA	Solid	Moisture	
720-42247-31	SR-SS-11 (1.0)-A	Total/NA	Solid	Moisture	
720-42247-35	SR-SS-11-A,B,C,D	Total/NA	Solid	Moisture	



Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-01(1.0)-1A

Lab Sample ID: 720-42247-1

Date Collected: 05/21/12 11:25

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114030	05/22/12 13:00	DH	TAL SF
Total/NA	Analysis	8260B		1	114004	05/22/12 13:26	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-01-A,B,C,D

Lab Sample ID: 720-42247-5

Date Collected: 05/21/12 11:25

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114012	05/22/12 16:12	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114087	05/23/12 12:51	JZ	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:18	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 20:53	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-09 (1.0)-A

Lab Sample ID: 720-42247-6

Date Collected: 05/21/12 12:05

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114030	05/22/12 13:00	DH	TAL SF
Total/NA	Analysis	8260B		1	114004	05/22/12 13:55	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-09-A,B,C,D

Lab Sample ID: 720-42247-10

Date Collected: 05/21/12 12:00

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114191	05/24/12 11:52	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114169	05/25/12 01:25	WR	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:22	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 20:56	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-02 (1.0)-A

Lab Sample ID: 720-42247-11

Date Collected: 05/21/12 12:45

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114030	05/22/12 13:00	DH	TAL SF
Total/NA	Analysis	8260B		1	114004	05/22/12 14:24	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-02-A,B,C,D

Lab Sample ID: 720-42247-15

Date Collected: 05/21/12 12:40

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114012	05/22/12 16:12	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114088	05/23/12 11:16	JZ	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:27	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 20:58	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-03 (1.0)-A

Lab Sample ID: 720-42247-16

Date Collected: 05/21/12 14:25

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114030	05/22/12 13:00	DH	TAL SF
Total/NA	Analysis	8260B		1	114004	05/22/12 14:53	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-03-A,B,C,D

Lab Sample ID: 720-42247-20

Date Collected: 05/21/12 14:07

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114012	05/22/12 16:12	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114088	05/23/12 11:40	JZ	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:31	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 21:00	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-10 (1.0)-A

Lab Sample ID: 720-42247-21

Date Collected: 05/21/12 13:20

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/22/12 13:00	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 11:19	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-10-A,B,C,D

Lab Sample ID: 720-42247-25

Date Collected: 05/21/12 13:20

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114012	05/22/12 16:12	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114088	05/23/12 12:03	JZ	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:36	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 21:02	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-04 (1.0)-A

Lab Sample ID: 720-42247-26

Date Collected: 05/21/12 14:33

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114030	05/22/12 13:00	DH	TAL SF
Total/NA	Analysis	8260B		1	114004	05/22/12 15:51	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-04-A,B,C,D

Lab Sample ID: 720-42247-30

Date Collected: 05/21/12 14:35

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114012	05/22/12 16:12	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114088	05/23/12 12:27	JZ	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:40	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 21:05	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Client Sample ID: SR-SS-11 (1.0)-A

Lab Sample ID: 720-42247-31

Date Collected: 05/21/12 15:10

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/22/12 13:00	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 11:48	AC	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Client Sample ID: SR-SS-11-A,B,C,D

Lab Sample ID: 720-42247-35

Date Collected: 05/21/12 15:10

Matrix: Solid

Date Received: 05/21/12 17:45

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114012	05/22/12 16:12	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114088	05/23/12 12:51	JZ	TAL SF
Total/NA	Prep	3050B			114113	05/23/12 11:56	ET	TAL SF
Total/NA	Analysis	6010B		4	114180	05/24/12 02:45	BA	TAL SF
Total/NA	Prep	7471A			114305	05/25/12 15:39	ASB	TAL SF
Total/NA	Analysis	7471A		1	114342	05/25/12 21:07	SK	TAL SF
Total/NA	Analysis	Moisture		1	114552	05/31/12 11:45	MJK	TAL SF

Laboratory References:

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

Certification Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pleasanton	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Method Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42247-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF
Moisture	Percent Moisture	EPA	TAL SF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Sample Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42247-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-42247-1	SR-SS-01(1.0)-1A	Solid	05/21/12 11:25	05/21/12 17:45
720-42247-5	SR-SS-01-A,B,C,D	Solid	05/21/12 11:25	05/21/12 17:45
720-42247-6	SR-SS-09 (1.0)-A	Solid	05/21/12 12:05	05/21/12 17:45
720-42247-10	SR-SS-09-A,B,C,D	Solid	05/21/12 12:00	05/21/12 17:45
720-42247-11	SR-SS-02 (1.0)-A	Solid	05/21/12 12:45	05/21/12 17:45
720-42247-15	SR-SS-02-A,B,C,D	Solid	05/21/12 12:40	05/21/12 17:45
720-42247-16	SR-SS-03 (1.0)-A	Solid	05/21/12 14:25	05/21/12 17:45
720-42247-20	SR-SS-03-A,B,C,D	Solid	05/21/12 14:07	05/21/12 17:45
720-42247-21	SR-SS-10 (1.0)-A	Solid	05/21/12 13:20	05/21/12 17:45
720-42247-25	SR-SS-10-A,B,C,D	Solid	05/21/12 13:20	05/21/12 17:45
720-42247-26	SR-SS-04 (1.0)-A	Solid	05/21/12 14:33	05/21/12 17:45
720-42247-30	SR-SS-04-A,B,C,D	Solid	05/21/12 14:35	05/21/12 17:45
720-42247-31	SR-SS-11 (1.0)-A	Solid	05/21/12 15:10	05/21/12 17:45
720-42247-35	SR-SS-11-A,B,C,D	Solid	05/21/12 15:10	05/21/12 17:45



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 Engineering / Remediation Resources Group, Inc.
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 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42247

Lab No. Test America
 Address Preparation of

Page 1 of 3
138434

Project Contact (Hardcopy or PDF To): T. Amgas California EDF Report? Yes No

Laboratory: Test America Navy EDD Report? Yes No

Electronic Deliverables To (Email Address): tiffany.amgas@errg.com

Phone No.: 415-730-7650 Fax No.: C. Walker & T. Bennett

Project Number: 2012-031 Phase # / Task #

Project Name: Bunker D Project Address: Marina Headlands

Project Manager: T. Amgas

Sample Designation	Date	Time	Soil	Water	Matrix	Chain-of-Custody Record and Analysis Request		12 hr/ 24 hr/ 48 hr/ 72 hr/ STD (1 wk) TAT	Number of Containers	Comments	For Lab Use Only
						Sampling	Container				
SR-SS-01(1.0)-A	5/21/12	1125	X	X	X	X	X	X	4		
SR-SS-01(1.5)-B	1140	X	X	X	X	X	X	X	1		
SR-SS-01(2.0)-C	1135	X	X	X	X	X	X	X	1		
SR-SS-01(2.5)-D	1145	X	X	X	X	X	X	X	1		
SR-SS-09(1.0)-A	1205	X	X	X	X	X	X	X	4		
SR-SS-09(1.5)-B	1200	X	X	X	X	X	X	X	1		
SR-SS-09(2.0)-C	1215	X	X	X	X	X	X	X	1		
SR-SS-09(2.5)-D	1210	X	X	X	X	X	X	X	1		
SR-SS-02(1.0)-A	1245	X	X	X	X	X	X	X	4		
SR-SS-02(1.5)-B	1240	X	X	X	X	X	X	X	1		

Remarks: compos'd A,B,C,D subsamples for CAM 17 and TPH-MMO, DDO

Relinquished by: [Signature] Date: 5/21/12 Time: 1539 Received by: [Signature]

Relinquished by: [Signature] Date: 5-21-12 Time: 1745 Received by: [Signature]

Relinquished by: [Signature] Date: 5/21/12 Time: 1745 Received by laboratory: [Signature]

Bill to: **Engineering / Remediation Resources Group, Inc.**
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

1.4°C



ERRG

Engineering / Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, CA 94104
Phone: (415) 395-9974
Fax: (415) 395-9983

720-42247

Lab No. Test Agency
Address Pacemaster Ct

Project Contact (Hardcopy or PDF To): T. Amgus
California EDF Report? Yes No
Navy EDD Report? Yes No
Electronic Deliverables To (Email Address): tiffany.amgus@erreg.com

Laboratory: T. Amgus
Sampler: C. Walker & T. Bennett

Phone No.: 415 395 9983 Fax No.:
Project Number: 2017-03 Phase # / Task #

Project Name: Bunker 10 Project Address: Marina Headlands

Project Manager: T. Amgus

Sample Designation	Date	Time	Container	Matrix	
				Soil	Water
SR-SS-02(L2.0)-C	5/21/12	1311	202 Eucaly	X	X
SR-SS-02(0.5)-D	1300			X	X
SR-SS-03(1.0)-A	1435	1435		X	X
SR-SS-03(1.5)-B	1403			X	X
SR-SS-03(1.5)-C	1410			X	X
SR-SS-03(0.5)-D	1358			X	X
SR-SS-10(1.0)-A	1320			X	X
SR-SS-10(1.5)-B	1330			X	X
SR-SS-10(0.0)-C	1348			X	X
SR-SS-10(2.5)-D	1345			X	X

Analysis Request	Chain-of-Custody Record and Analysis Request			
	12 hr/ 24 hr/ 48 hr/ 72 hr/STD (1 wk) TAT	Number of Containers	Comments	For Lab Use Only
CAM 17 TPH MRO, DRO TPH-GRO + BTEX	X	1		
	X	1		
	X	1		
	X	1		
	X	1		
	X	1		
	X	1		
	X	1		
	X	1		

Relinquished by: [Signature] Date: 5/21/12 Time: 1539 Received by: [Signature]

Relinquished by: [Signature] Date: 5-21-12 Time: 1745 Received by: [Signature]

Relinquished by: [Signature] Date: 5/21/12 Time: 1745 Received by: [Signature]

Relinquished by: [Signature] Date: 5/21/12 Time: 1745 Received by: [Signature]

Remarks: Composite A, B, C, D for TPH MRO, DRO + CAM 17

Bill to: Engineering / Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, CA 94553

ERRG
 Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42247

Lab No. 1st America
 Address Quantum CA

Project Contact (Hardcopy or PDF To): California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address): Yes No

Laboratory: Test America
 Phone No.: 415-330-7658 Fax No.:
 Project Number: 2012-031 Phase # / Task #
 Sample: Tiffany.Carcus@errg.com
 C. Walker & F. Bennett

Project Name: Bunker 10 Project Address: Navn Henklands
 Project Manager: T. Angus

Sample Designation	Date	Time	Soil	Water	Container	Matrix	Chain-of-Custody Record and Analysis Request		Comments	For Lab Use Only
							Analysis Request	Analysis Request		
SR-SS-04(1.0)-A	5/21/12	1435	X		X		X	X		
SR-SS-04(1.5)-B		1440	X		X		X	X		
SR-SS-04(2.0)-C		1455	X		X		X	X		
SR-SS-04(2.5)-D		1450	X		X		X	X		
SR-SS-11(1.0)-A		1510	X		X		X	X		
SR-SS-11(1.5)-B		1525	X		X		X	X		
SR-SS-11(2.0)-C		1520	X		X		X	X		
SR-SS-11(2.5)-D		1515	X		X		X	X		

Relinquished by: [Signature] Date: 5/21/12 Time: 1539 Received by: [Signature]
 Relinquished by: [Signature] Date: 5/21/12 Time: 1745 Received by: [Signature]

Remarks: composit A, B, C, D for CAM 17
TPH-MNO, TPH-DLO

Relinquished by: [Signature] Date: 5/21/12 Time: 1745 Received by Laboratory: [Signature]
 Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

Sharma, Dimple

From: Tiffany Angus [tiffany.angus@errg.com]
Sent: Wednesday, May 23, 2012 6:06 PM
To: Sharma, Dimple
Subject: RE: Files from 720-42247-1 Bunker Rd-Marín Headlands

Please log as follows-

SR-SS-10 (1.0)-B @ 13:30
SR-SS-03 (1.0)-A @ 14:25
SR-SS-04 (1.0)-A @ 14:33

Thank you!

Tiffany Angus
ENGINEERING/REMEDIAION RESOURCES GROUP, INC.
115 Sansome Street, Suite 200, San Francisco, CA 94104
Direct: 415-848-7117
tiffany.angus@errg.com

From: Sharma, Dimple [dimple.sharma@testamericainc.com]
Sent: Wednesday, May 23, 2012 3:01 PM
To: Tiffany Angus
Subject: Files from 720-42247-1 Bunker Rd-Marín Headlands

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): (#22) SR-SS-10 (1.5)-B @ 13:30. The container labels lists SR-SS-10 (1.0)-B @ 13:30. The COC lists SR-SS-10 (1.5)-B.

Sample time on (#16) SR-SS-03 (1.0)-A on container 14:25, COC lists 14:35.
Sample time on (#26) SR-SS-04 (1.0)-A on container 14:33, COC lists 14:35.

Logged diesel w/silica gel per D.S..

DIMPLE SHARMA

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

Reference: [104718]
Attachments: 3

Login Sample Receipt Checklist

Client: Engineering Remediation Resources Group.

Job Number: 720-42247-1

Login Number: 42247

List Number: 1

Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

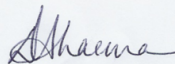
ANALYTICAL REPORT

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

TestAmerica Job ID: 720-42273-1
Client Project/Site: Bunker Rd-Marin Headlands

For:
Engineering Remediation Resources Group.
115 Sansome Street
Suite 200
San Francisco, California 94104

Attn: Tiffany Angus



Authorized for release by:
5/31/2012 3:53:37 PM

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

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

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Definitions/Glossary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Job ID: 720-42273-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-42273-1

Comments

The moisture was added later and samples were reported on dry weight basis per client.

Receipt

The samples were received on 5/22/2012 6:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3° C and 1.8° C.

Except:

Received 3 encores and 1 jar not listed on coc with the sample id FCS0-SS07(1.0)A sampled 5-21-12 @ 9:40. One of the encore bags read FCSS0-SS07(1.0)A. Also received 1 jar not listed on coc. FCS0-SS07(1.5)B sampled 5-21-12 @ 10:00. Logged for analysis per client.

GC/MS VOA

Method 8260B: The following sample 42273-57 was prepared outside of preparation holding time.

No other analytical or quality issues were noted.

GC Semi VOA

Method 8015B: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: FCA-SS-01 A,B,C,D (720-42273-35).

No other analytical or quality issues were noted.

Metals

Method 7471A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 114330 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-05(1.0)-A

Lab Sample ID: 720-42273-1

No Detections

Client Sample ID: SR-SS-05 A,B,C,D

Lab Sample ID: 720-42273-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	26		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	130		55		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	5.2		4.2		mg/Kg	4	*	6010B	Total/NA
Barium	420		2.1		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.48		0.42		mg/Kg	4	*	6010B	Total/NA
Chromium	43		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	17		0.84		mg/Kg	4	*	6010B	Total/NA
Copper	71		6.3		mg/Kg	4	*	6010B	Total/NA
Lead	33		2.1		mg/Kg	4	*	6010B	Total/NA
Nickel	33		2.1		mg/Kg	4	*	6010B	Total/NA
Vanadium	110		2.1		mg/Kg	4	*	6010B	Total/NA
Zinc	61		6.3		mg/Kg	4	*	6010B	Total/NA
Mercury	0.090		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: SR-SS-06(1.0)-A

Lab Sample ID: 720-42273-6

No Detections

Client Sample ID: SR-SS-06 A,B,C,D

Lab Sample ID: 720-42273-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	8.7		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Barium	300		2.3		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.45		0.45		mg/Kg	4	*	6010B	Total/NA
Chromium	63		2.3		mg/Kg	4	*	6010B	Total/NA
Cobalt	28		0.91		mg/Kg	4	*	6010B	Total/NA
Copper	41		6.8		mg/Kg	4	*	6010B	Total/NA
Lead	26		2.3		mg/Kg	4	*	6010B	Total/NA
Nickel	32		2.3		mg/Kg	4	*	6010B	Total/NA
Vanadium	150		2.3		mg/Kg	4	*	6010B	Total/NA
Zinc	63		6.8		mg/Kg	4	*	6010B	Total/NA
Mercury	0.10		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: SR-SS-07(1.0)-A

Lab Sample ID: 720-42273-11

No Detections

Client Sample ID: SR-SS-07 A,B,C,D

Lab Sample ID: 720-42273-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	38		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	78		56		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	4.3		4.3		mg/Kg	4	*	6010B	Total/NA
Barium	520		2.1		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.48		0.43		mg/Kg	4	*	6010B	Total/NA
Chromium	45		2.1		mg/Kg	4	*	6010B	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-07 A,B,C,D (Continued)

Lab Sample ID: 720-42273-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	25		0.86		mg/Kg	4	☼	6010B	Total/NA
Copper	63		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	35		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	35		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	150		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	83		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.11		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: SR-SS-08(1.0)-A

Lab Sample ID: 720-42273-16

No Detections

Client Sample ID: SR-SS-08 A,B,C,D

Lab Sample ID: 720-42273-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	28		1.1		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	210		56		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Arsenic	6.3		4.2		mg/Kg	4	☼	6010B	Total/NA
Barium	780		2.1		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.68		0.42		mg/Kg	4	☼	6010B	Total/NA
Chromium	54		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	25		0.85		mg/Kg	4	☼	6010B	Total/NA
Copper	100		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	43		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	45		2.1		mg/Kg	4	☼	6010B	Total/NA
Thallium	5.4		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	140		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	91		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.12		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: SR-SS-12(1.0)-A

Lab Sample ID: 720-42273-21

No Detections

Client Sample ID: SR-SS-12 A,B,C,D

Lab Sample ID: 720-42273-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	40		3.2		mg/Kg	3	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	250		160		mg/Kg	3	☼	8015B	Silica Gel Cleanup
Arsenic	4.6		4.3		mg/Kg	4	☼	6010B	Total/NA
Barium	680		2.1		mg/Kg	4	☼	6010B	Total/NA
Chromium	26		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	29		0.86		mg/Kg	4	☼	6010B	Total/NA
Copper	88		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	14		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	37		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	170		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	81		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.069		0.010		mg/Kg	1	☼	7471A	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-13(1.0)-A

Lab Sample ID: 720-42273-26

No Detections

Client Sample ID: SR-SS-13 A,B,C,D

Lab Sample ID: 720-42273-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	40		5.7		mg/Kg	5	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	340		280		mg/Kg	5	*	8015B	Silica Gel Cleanup
Arsenic	5.4		4.3		mg/Kg	4	*	6010B	Total/NA
Barium	650		2.2		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.49		0.43		mg/Kg	4	*	6010B	Total/NA
Chromium	42		2.2		mg/Kg	4	*	6010B	Total/NA
Cobalt	30		0.87		mg/Kg	4	*	6010B	Total/NA
Copper	89		6.5		mg/Kg	4	*	6010B	Total/NA
Lead	37		2.2		mg/Kg	4	*	6010B	Total/NA
Nickel	44		2.2		mg/Kg	4	*	6010B	Total/NA
Vanadium	180		2.2		mg/Kg	4	*	6010B	Total/NA
Zinc	110		6.5		mg/Kg	4	*	6010B	Total/NA
Mercury	0.11		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-01(1.0)-A

Lab Sample ID: 720-42273-31

No Detections

Client Sample ID: FCA-SS-01 A,B,C,D

Lab Sample ID: 720-42273-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	94		5.3		mg/Kg	5	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	400		260		mg/Kg	5	*	8015B	Silica Gel Cleanup
Arsenic	6.0		4.1		mg/Kg	4	*	6010B	Total/NA
Barium	320		2.0		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.62		0.41		mg/Kg	4	*	6010B	Total/NA
Chromium	54		2.0		mg/Kg	4	*	6010B	Total/NA
Cobalt	17		0.82		mg/Kg	4	*	6010B	Total/NA
Copper	78		6.1		mg/Kg	4	*	6010B	Total/NA
Lead	52		2.0		mg/Kg	4	*	6010B	Total/NA
Nickel	59		2.0		mg/Kg	4	*	6010B	Total/NA
Vanadium	66		2.0		mg/Kg	4	*	6010B	Total/NA
Zinc	89		6.1		mg/Kg	4	*	6010B	Total/NA
Mercury	0.11		0.010		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-02(1.0)-A

Lab Sample ID: 720-42273-36

No Detections

Client Sample ID: FCA-SS-02 A,B,C,D

Lab Sample ID: 720-42273-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	57		2.1		mg/Kg	2	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	360		100		mg/Kg	2	*	8015B	Silica Gel Cleanup
Arsenic	5.5		4.1		mg/Kg	4	*	6010B	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-02 A,B,C,D (Continued)

Lab Sample ID: 720-42273-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	250		2.0		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.49		0.41		mg/Kg	4	*	6010B	Total/NA
Chromium	54		2.0		mg/Kg	4	*	6010B	Total/NA
Cobalt	13		0.82		mg/Kg	4	*	6010B	Total/NA
Copper	71		6.1		mg/Kg	4	*	6010B	Total/NA
Lead	24		2.0		mg/Kg	4	*	6010B	Total/NA
Nickel	40		2.0		mg/Kg	4	*	6010B	Total/NA
Vanadium	48		2.0		mg/Kg	4	*	6010B	Total/NA
Zinc	65		6.1		mg/Kg	4	*	6010B	Total/NA
Mercury	0.21		0.010		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-07(1.0)-A

Lab Sample ID: 720-42273-41

No Detections

Client Sample ID: FCA-SS-07 A,B,C,D

Lab Sample ID: 720-42273-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	5.9		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	7.7		4.3		mg/Kg	4	*	6010B	Total/NA
Barium	670		2.2		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.75		0.43		mg/Kg	4	*	6010B	Total/NA
Chromium	56		2.2		mg/Kg	4	*	6010B	Total/NA
Cobalt	16		0.87		mg/Kg	4	*	6010B	Total/NA
Copper	74		6.5		mg/Kg	4	*	6010B	Total/NA
Lead	27		2.2		mg/Kg	4	*	6010B	Total/NA
Nickel	51		2.2		mg/Kg	4	*	6010B	Total/NA
Vanadium	79		2.2		mg/Kg	4	*	6010B	Total/NA
Zinc	66		6.5		mg/Kg	4	*	6010B	Total/NA
Mercury	0.15		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-03(1.0)-A

Lab Sample ID: 720-42273-46

No Detections

Client Sample ID: FCA-SS-03 A,B,C,D

Lab Sample ID: 720-42273-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.9		4.4		mg/Kg	4	*	6010B	Total/NA
Barium	150		2.2		mg/Kg	4	*	6010B	Total/NA
Beryllium	1.1		0.44		mg/Kg	4	*	6010B	Total/NA
Chromium	47		2.2		mg/Kg	4	*	6010B	Total/NA
Cobalt	14		0.88		mg/Kg	4	*	6010B	Total/NA
Copper	32		6.6		mg/Kg	4	*	6010B	Total/NA
Lead	14		2.2		mg/Kg	4	*	6010B	Total/NA
Nickel	33		2.2		mg/Kg	4	*	6010B	Total/NA
Vanadium	68		2.2		mg/Kg	4	*	6010B	Total/NA
Zinc	39		6.6		mg/Kg	4	*	6010B	Total/NA
Mercury	0.036		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-04(1.0)-A

Lab Sample ID: 720-42273-51

No Detections

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-04 A,B,C,D

Lab Sample ID: 720-42273-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	20		1.1		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	95		55		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Arsenic	5.6		4.4		mg/Kg	4	☼	6010B	Total/NA
Barium	410		2.2		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.57		0.44		mg/Kg	4	☼	6010B	Total/NA
Chromium	49		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	20		0.88		mg/Kg	4	☼	6010B	Total/NA
Copper	77		6.6		mg/Kg	4	☼	6010B	Total/NA
Lead	18		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	44		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	95		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	67		6.6		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.22		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCS0-SS07(1.0)A

Lab Sample ID: 720-42273-57

No Detections

Client Sample ID: FCS0-SS07-A,B,C,D

Lab Sample ID: 720-42273-61

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.8		4.6		mg/Kg	4	☼	6010B	Total/NA
Barium	86		2.3		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.56		0.46		mg/Kg	4	☼	6010B	Total/NA
Chromium	84		2.3		mg/Kg	4	☼	6010B	Total/NA
Cobalt	13		0.91		mg/Kg	4	☼	6010B	Total/NA
Copper	29		6.8		mg/Kg	4	☼	6010B	Total/NA
Lead	6.0		2.3		mg/Kg	4	☼	6010B	Total/NA
Molybdenum	2.6		2.3		mg/Kg	4	☼	6010B	Total/NA
Nickel	35		2.3		mg/Kg	4	☼	6010B	Total/NA
Vanadium	76		2.3		mg/Kg	4	☼	6010B	Total/NA
Zinc	22		6.8		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.060		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-05(1.0)-A

Lab Sample ID: 720-42273-1

Date Collected: 05/22/12 07:55

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.1		ug/Kg	☼	05/23/12 10:30	05/23/12 12:23	1
Ethylbenzene	ND		5.1		ug/Kg	☼	05/23/12 10:30	05/23/12 12:23	1
Toluene	ND		5.1		ug/Kg	☼	05/23/12 10:30	05/23/12 12:23	1
Xylenes, Total	ND		10		ug/Kg	☼	05/23/12 10:30	05/23/12 12:23	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/23/12 10:30	05/23/12 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	63		45 - 131	05/23/12 10:30	05/23/12 12:23	1
1,2-Dichloroethane-d4 (Surr)	100		60 - 140	05/23/12 10:30	05/23/12 12:23	1
Toluene-d8 (Surr)	89		58 - 140	05/23/12 10:30	05/23/12 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-05 A,B,C,D

Lab Sample ID: 720-42273-5

Date Collected: 05/22/12 07:55

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	26		1.1		mg/Kg	☼	05/24/12 11:52	05/25/12 14:42	1
Motor Oil Range Organics [C24-C36]	130		55		mg/Kg	☼	05/24/12 11:52	05/25/12 14:42	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Capric Acid (Surr)	0.6		0 - 1				05/24/12 11:52	05/25/12 14:42	1
p-Terphenyl	75		38 - 148				05/24/12 11:52	05/25/12 14:42	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Arsenic	5.2		4.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Barium	420		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Beryllium	0.48		0.42		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Cadmium	ND		0.53		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Chromium	43		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Cobalt	17		0.84		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Copper	71		6.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Lead	33		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Molybdenum	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Nickel	33		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Selenium	ND		4.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Thallium	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Vanadium	110		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4
Zinc	61		6.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:16	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.090		0.011		mg/Kg	☼	05/25/12 18:23	05/30/12 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-06(1.0)-A

Lab Sample ID: 720-42273-6

Date Collected: 05/22/12 08:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.3		ug/Kg	☼	05/23/12 10:30	05/23/12 12:52	1
Ethylbenzene	ND		5.3		ug/Kg	☼	05/23/12 10:30	05/23/12 12:52	1
Toluene	ND		5.3		ug/Kg	☼	05/23/12 10:30	05/23/12 12:52	1
Xylenes, Total	ND		11		ug/Kg	☼	05/23/12 10:30	05/23/12 12:52	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/23/12 10:30	05/23/12 12:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	68		45 - 131	05/23/12 10:30	05/23/12 12:52	1
1,2-Dichloroethane-d4 (Surr)	102		60 - 140	05/23/12 10:30	05/23/12 12:52	1
Toluene-d8 (Surr)	91		58 - 140	05/23/12 10:30	05/23/12 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-06 A,B,C,D

Lab Sample ID: 720-42273-10

Date Collected: 05/22/12 08:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	8.7		1.1		mg/Kg	☼	05/24/12 11:52	05/25/12 15:06	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	☼	05/24/12 11:52	05/25/12 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				05/24/12 11:52	05/25/12 15:06	1
p-Terphenyl	85		38 - 148				05/24/12 11:52	05/25/12 15:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Arsenic	ND		4.5		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Barium	300		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Beryllium	0.45		0.45		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Cadmium	ND		0.57		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Chromium	63		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Cobalt	28		0.91		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Copper	41		6.8		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Lead	26		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Molybdenum	ND		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Nickel	32		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Selenium	ND		4.5		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Thallium	ND		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Vanadium	150		2.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4
Zinc	63		6.8		mg/Kg	☼	05/23/12 21:44	05/25/12 09:20	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.011		mg/Kg	☼	05/25/12 18:23	05/30/12 12:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-07(1.0)-A

Lab Sample ID: 720-42273-11

Date Collected: 05/22/12 09:10

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.5		ug/Kg	☼	05/23/12 10:30	05/23/12 13:22	1
Ethylbenzene	ND		5.5		ug/Kg	☼	05/23/12 10:30	05/23/12 13:22	1
Toluene	ND		5.5		ug/Kg	☼	05/23/12 10:30	05/23/12 13:22	1
Xylenes, Total	ND		11		ug/Kg	☼	05/23/12 10:30	05/23/12 13:22	1
Gasoline Range Organics (GRO) -C5-C12	ND		270		ug/Kg	☼	05/23/12 10:30	05/23/12 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	70		45 - 131	05/23/12 10:30	05/23/12 13:22	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/23/12 10:30	05/23/12 13:22	1
Toluene-d8 (Surr)	87		58 - 140	05/23/12 10:30	05/23/12 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-07 A,B,C,D

Lab Sample ID: 720-42273-15

Date Collected: 05/22/12 09:10

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	38		1.1		mg/Kg	☼	05/24/12 11:52	05/25/12 15:31	1
Motor Oil Range Organics [C24-C36]	78		56		mg/Kg	☼	05/24/12 11:52	05/25/12 15:31	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Capric Acid (Surr)	0.9		0 - 1				05/24/12 11:52	05/25/12 15:31	1
p-Terphenyl	77		38 - 148				05/24/12 11:52	05/25/12 15:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Arsenic	4.3		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Barium	520		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Beryllium	0.48		0.43		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Cadmium	ND		0.54		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Chromium	45		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Cobalt	25		0.86		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Copper	63		6.4		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Lead	35		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Molybdenum	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Nickel	35		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Selenium	ND		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Thallium	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Vanadium	150		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4
Zinc	83		6.4		mg/Kg	☼	05/23/12 21:44	05/25/12 09:25	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.011		mg/Kg	☼	05/25/12 18:23	05/30/12 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-08)1.0)-A

Lab Sample ID: 720-42273-16

Date Collected: 05/22/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.2		ug/Kg	☼	05/23/12 10:30	05/23/12 13:51	1
Ethylbenzene	ND		6.2		ug/Kg	☼	05/23/12 10:30	05/23/12 13:51	1
Toluene	ND		6.2		ug/Kg	☼	05/23/12 10:30	05/23/12 13:51	1
Xylenes, Total	ND		12		ug/Kg	☼	05/23/12 10:30	05/23/12 13:51	1
Gasoline Range Organics (GRO) -C5-C12	ND		310		ug/Kg	☼	05/23/12 10:30	05/23/12 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	62		45 - 131	05/23/12 10:30	05/23/12 13:51	1
1,2-Dichloroethane-d4 (Surr)	107		60 - 140	05/23/12 10:30	05/23/12 13:51	1
Toluene-d8 (Surr)	87		58 - 140	05/23/12 10:30	05/23/12 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-08 A,B,C,D

Lab Sample ID: 720-42273-20

Date Collected: 05/22/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	28		1.1		mg/Kg	☼	05/24/12 11:52	05/25/12 15:55	1
Motor Oil Range Organics [C24-C36]	210		56		mg/Kg	☼	05/24/12 11:52	05/25/12 15:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 11:52	05/25/12 15:55	1
p-Terphenyl	64		38 - 148				05/24/12 11:52	05/25/12 15:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Arsenic	6.3		4.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Barium	780		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Beryllium	0.68		0.42		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Cadmium	ND		0.53		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Chromium	54		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Cobalt	25		0.85		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Copper	100		6.4		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Lead	43		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Molybdenum	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Nickel	45		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Selenium	ND		4.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Thallium	5.4		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Vanadium	140		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4
Zinc	91		6.4		mg/Kg	☼	05/23/12 21:44	05/25/12 09:29	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.011		mg/Kg	☼	05/25/12 18:23	05/30/12 12:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-12(1.0)-A

Lab Sample ID: 720-42273-21

Date Collected: 05/22/12 10:20

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 95.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.8		ug/Kg	☼	05/23/12 10:30	05/23/12 14:19	1
Ethylbenzene	ND		4.8		ug/Kg	☼	05/23/12 10:30	05/23/12 14:19	1
Toluene	ND		4.8		ug/Kg	☼	05/23/12 10:30	05/23/12 14:19	1
Xylenes, Total	ND		9.6		ug/Kg	☼	05/23/12 10:30	05/23/12 14:19	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg	☼	05/23/12 10:30	05/23/12 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	73		45 - 131	05/23/12 10:30	05/23/12 14:19	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140	05/23/12 10:30	05/23/12 14:19	1
Toluene-d8 (Surr)	89		58 - 140	05/23/12 10:30	05/23/12 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-12 A,B,C,D

Lab Sample ID: 720-42273-25

Date Collected: 05/22/12 10:20

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 92.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	40		3.2		mg/Kg	☼	05/24/12 11:52	05/25/12 16:19	3
Motor Oil Range Organics [C24-C36]	250		160		mg/Kg	☼	05/24/12 11:52	05/25/12 16:19	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 11:52	05/25/12 16:19	3
p-Terphenyl	82		38 - 148				05/24/12 11:52	05/25/12 16:19	3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Arsenic	4.6		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Barium	680		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Beryllium	ND		0.43		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Cadmium	ND		0.54		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Chromium	26		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Cobalt	29		0.86		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Copper	88		6.4		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Lead	14		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Molybdenum	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Nickel	37		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Selenium	ND		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Thallium	ND		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Vanadium	170		2.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4
Zinc	81		6.4		mg/Kg	☼	05/23/12 21:44	05/25/12 09:34	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.010		mg/Kg	☼	05/25/12 18:23	05/30/12 12:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.8		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-13(1.0)-A

Lab Sample ID: 720-42273-26

Date Collected: 05/22/12 10:50

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 91.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg	☼	05/23/12 10:30	05/23/12 14:48	1
Ethylbenzene	ND		5.0		ug/Kg	☼	05/23/12 10:30	05/23/12 14:48	1
Toluene	ND		5.0		ug/Kg	☼	05/23/12 10:30	05/23/12 14:48	1
Xylenes, Total	ND		10		ug/Kg	☼	05/23/12 10:30	05/23/12 14:48	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/23/12 10:30	05/23/12 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	79		45 - 131	05/23/12 10:30	05/23/12 14:48	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	05/23/12 10:30	05/23/12 14:48	1
Toluene-d8 (Surr)	93		58 - 140	05/23/12 10:30	05/23/12 14:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-13 A,B,C,D

Lab Sample ID: 720-42273-30

Date Collected: 05/22/12 10:50

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	40		5.7		mg/Kg	☼	05/24/12 22:52	05/30/12 12:08	5
Motor Oil Range Organics [C24-C36]	340		280		mg/Kg	☼	05/24/12 22:52	05/30/12 12:08	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 22:52	05/30/12 12:08	5
p-Terphenyl	0	D X	38 - 148				05/24/12 22:52	05/30/12 12:08	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Arsenic	5.4		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Barium	650		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Beryllium	0.49		0.43		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Cadmium	ND		0.54		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Chromium	42		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Cobalt	30		0.87		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Copper	89		6.5		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Lead	37		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Nickel	44		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Selenium	ND		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Vanadium	180		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4
Zinc	110		6.5		mg/Kg	☼	05/23/12 21:44	05/25/12 09:38	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.011		mg/Kg	☼	05/25/12 18:23	05/30/12 12:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-01(1.0)-A

Lab Sample ID: 720-42273-31

Date Collected: 05/22/12 13:00

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 97.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/Kg	☼	05/23/12 10:30	05/23/12 15:17	1
Ethylbenzene	ND		6.4		ug/Kg	☼	05/23/12 10:30	05/23/12 15:17	1
Toluene	ND		6.4		ug/Kg	☼	05/23/12 10:30	05/23/12 15:17	1
Xylenes, Total	ND		13		ug/Kg	☼	05/23/12 10:30	05/23/12 15:17	1
Gasoline Range Organics (GRO) -C5-C12	ND		320		ug/Kg	☼	05/23/12 10:30	05/23/12 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	60		45 - 131	05/23/12 10:30	05/23/12 15:17	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/23/12 10:30	05/23/12 15:17	1
Toluene-d8 (Surr)	82		58 - 140	05/23/12 10:30	05/23/12 15:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.7		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-01 A,B,C,D

Lab Sample ID: 720-42273-35

Date Collected: 05/22/12 13:00

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 94.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	94		5.3		mg/Kg	☼	05/24/12 22:52	05/25/12 20:02	5
Motor Oil Range Organics [C24-C36]	400		260		mg/Kg	☼	05/24/12 22:52	05/25/12 20:02	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 22:52	05/25/12 20:02	5
p-Terphenyl	0	D X	38 - 148				05/24/12 22:52	05/25/12 20:02	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Arsenic	6.0		4.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Barium	320		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Beryllium	0.62		0.41		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Cadmium	ND		0.51		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Chromium	54		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Cobalt	17		0.82		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Copper	78		6.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Lead	52		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Molybdenum	ND		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Nickel	59		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Selenium	ND		4.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Silver	ND		1.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Thallium	ND		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Vanadium	66		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4
Zinc	89		6.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:43	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.010		mg/Kg	☼	05/25/12 19:03	05/29/12 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.9		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-02(1.0)-A

Lab Sample ID: 720-42273-36

Date Collected: 05/22/12 13:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 92.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.5		ug/Kg	☼	05/23/12 10:30	05/23/12 15:46	1
Ethylbenzene	ND		5.5		ug/Kg	☼	05/23/12 10:30	05/23/12 15:46	1
Toluene	ND		5.5		ug/Kg	☼	05/23/12 10:30	05/23/12 15:46	1
Xylenes, Total	ND		11		ug/Kg	☼	05/23/12 10:30	05/23/12 15:46	1
Gasoline Range Organics (GRO) -C5-C12	ND		280		ug/Kg	☼	05/23/12 10:30	05/23/12 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	70		45 - 131	05/23/12 10:30	05/23/12 15:46	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	05/23/12 10:30	05/23/12 15:46	1
Toluene-d8 (Surr)	89		58 - 140	05/23/12 10:30	05/23/12 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.5		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-02 A,B,C,D

Lab Sample ID: 720-42273-40

Date Collected: 05/22/12 13:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 95.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	57		2.1		mg/Kg	☼	05/24/12 22:52	05/25/12 20:27	2
Motor Oil Range Organics [C24-C36]	360		100		mg/Kg	☼	05/24/12 22:52	05/25/12 20:27	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 22:52	05/25/12 20:27	2
p-Terphenyl	54		38 - 148				05/24/12 22:52	05/25/12 20:27	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Arsenic	5.5		4.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Barium	250		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Beryllium	0.49		0.41		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Cadmium	ND		0.51		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Chromium	54		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Cobalt	13		0.82		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Copper	71		6.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Lead	24		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Molybdenum	ND		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Nickel	40		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Selenium	ND		4.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Silver	ND		1.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Thallium	ND		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Vanadium	48		2.0		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4
Zinc	65		6.1		mg/Kg	☼	05/23/12 21:44	05/25/12 09:56	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.010		mg/Kg	☼	05/25/12 19:03	05/29/12 21:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-07(1.0)-A

Lab Sample ID: 720-42273-41

Date Collected: 05/22/12 13:35

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 83.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.7		ug/Kg	☼	05/23/12 10:30	05/23/12 16:16	1
Ethylbenzene	ND		5.7		ug/Kg	☼	05/23/12 10:30	05/23/12 16:16	1
Toluene	ND		5.7		ug/Kg	☼	05/23/12 10:30	05/23/12 16:16	1
Xylenes, Total	ND		11		ug/Kg	☼	05/23/12 10:30	05/23/12 16:16	1
Gasoline Range Organics (GRO) -C5-C12	ND		280		ug/Kg	☼	05/23/12 10:30	05/23/12 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		45 - 131	05/23/12 10:30	05/23/12 16:16	1
1,2-Dichloroethane-d4 (Surr)	101		60 - 140	05/23/12 10:30	05/23/12 16:16	1
Toluene-d8 (Surr)	91		58 - 140	05/23/12 10:30	05/23/12 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-07 A,B,C,D

Lab Sample ID: 720-42273-45

Date Collected: 05/22/12 13:35

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5.9		1.1		mg/Kg	☼	05/24/12 22:52	05/26/12 01:43	1
Motor Oil Range Organics [C24-C36]	ND		57		mg/Kg	☼	05/24/12 22:52	05/26/12 01:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				05/24/12 22:52	05/26/12 01:43	1
p-Terphenyl	65		38 - 148				05/24/12 22:52	05/26/12 01:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Arsenic	7.7		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Barium	670		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Beryllium	0.75		0.43		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Cadmium	ND		0.54		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Chromium	56		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Cobalt	16		0.87		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Copper	74		6.5		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Lead	27		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Nickel	51		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Selenium	ND		4.3		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Vanadium	79		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4
Zinc	66		6.5		mg/Kg	☼	05/23/12 21:44	05/25/12 10:01	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.011		mg/Kg	☼	05/25/12 19:03	05/29/12 21:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-03(1.0)-A

Lab Sample ID: 720-42273-46

Date Collected: 05/22/12 14:30

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/Kg	☼	05/23/12 10:30	05/23/12 16:45	1
Ethylbenzene	ND		6.4		ug/Kg	☼	05/23/12 10:30	05/23/12 16:45	1
Toluene	ND		6.4		ug/Kg	☼	05/23/12 10:30	05/23/12 16:45	1
Xylenes, Total	ND		13		ug/Kg	☼	05/23/12 10:30	05/23/12 16:45	1
Gasoline Range Organics (GRO) -C5-C12	ND		320		ug/Kg	☼	05/23/12 10:30	05/23/12 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	83		45 - 131	05/23/12 10:30	05/23/12 16:45	1
1,2-Dichloroethane-d4 (Surr)	102		60 - 140	05/23/12 10:30	05/23/12 16:45	1
Toluene-d8 (Surr)	93		58 - 140	05/23/12 10:30	05/23/12 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-03 A,B,C,D

Lab Sample ID: 720-42273-50

Date Collected: 05/22/12 14:30

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/24/12 22:52	05/26/12 02:08	1
Motor Oil Range Organics [C24-C36]	ND		57		mg/Kg	☼	05/24/12 22:52	05/26/12 02:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 22:52	05/26/12 02:08	1
p-Terphenyl	80		38 - 148				05/24/12 22:52	05/26/12 02:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Arsenic	7.9		4.4		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Barium	150		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Beryllium	1.1		0.44		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Cadmium	ND		0.55		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Chromium	47		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Cobalt	14		0.88		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Copper	32		6.6		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Lead	14		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Nickel	33		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Selenium	ND		4.4		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Vanadium	68		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4
Zinc	39		6.6		mg/Kg	☼	05/23/12 21:44	05/25/12 10:05	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.011		mg/Kg	☼	05/25/12 19:03	05/29/12 21:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-04(1.0)-A

Lab Sample ID: 720-42273-51

Date Collected: 05/22/12 15:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 85.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.2		ug/Kg	☼	05/23/12 10:30	05/23/12 17:14	1
Ethylbenzene	ND		5.2		ug/Kg	☼	05/23/12 10:30	05/23/12 17:14	1
Toluene	ND		5.2		ug/Kg	☼	05/23/12 10:30	05/23/12 17:14	1
Xylenes, Total	ND		10		ug/Kg	☼	05/23/12 10:30	05/23/12 17:14	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/23/12 10:30	05/23/12 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		45 - 131	05/23/12 10:30	05/23/12 17:14	1
1,2-Dichloroethane-d4 (Surr)	100		60 - 140	05/23/12 10:30	05/23/12 17:14	1
Toluene-d8 (Surr)	92		58 - 140	05/23/12 10:30	05/23/12 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-04 A,B,C,D

Lab Sample ID: 720-42273-55

Date Collected: 05/22/12 15:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 90.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	20		1.1		mg/Kg	☼	05/24/12 22:52	05/26/12 02:32	1
Motor Oil Range Organics [C24-C36]	95		55		mg/Kg	☼	05/24/12 22:52	05/26/12 02:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				05/24/12 22:52	05/26/12 02:32	1
p-Terphenyl	68		38 - 148				05/24/12 22:52	05/26/12 02:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Arsenic	5.6		4.4		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Barium	410		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Beryllium	0.57		0.44		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Cadmium	ND		0.55		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Chromium	49		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Cobalt	20		0.88		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Copper	77		6.6		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Lead	18		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Molybdenum	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Nickel	44		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Selenium	ND		4.4		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Silver	ND		1.1		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Thallium	ND		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Vanadium	95		2.2		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4
Zinc	67		6.6		mg/Kg	☼	05/23/12 21:44	05/25/12 10:10	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.22		0.011		mg/Kg	☼	05/25/12 19:03	05/29/12 21:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.5		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCS0-SS07(1.0)A

Lab Sample ID: 720-42273-57

Date Collected: 05/21/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 87.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	H	6.5		ug/Kg	☼	05/23/12 12:20	05/25/12 17:59	1
Ethylbenzene	ND	H	6.5		ug/Kg	☼	05/23/12 12:20	05/25/12 17:59	1
Toluene	ND	H	6.5		ug/Kg	☼	05/23/12 12:20	05/25/12 17:59	1
Xylenes, Total	ND	H	13		ug/Kg	☼	05/23/12 12:20	05/25/12 17:59	1
Gasoline Range Organics (GRO) -C5-C12	ND	H	330		ug/Kg	☼	05/23/12 12:20	05/25/12 17:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		45 - 131	05/23/12 12:20	05/25/12 17:59	1
1,2-Dichloroethane-d4 (Surr)	119		60 - 140	05/23/12 12:20	05/25/12 17:59	1
Toluene-d8 (Surr)	99		58 - 140	05/23/12 12:20	05/25/12 17:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCS0-SS07-A,B,C,D

Lab Sample ID: 720-42273-61

Date Collected: 05/21/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/25/12 09:33	05/26/12 18:25	1
Motor Oil Range Organics [C24-C36]	ND		57		mg/Kg	☼	05/25/12 09:33	05/26/12 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/25/12 09:33	05/26/12 18:25	1
p-Terphenyl	88		38 - 148				05/25/12 09:33	05/26/12 18:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Arsenic	6.8		4.6		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Barium	86		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Beryllium	0.56		0.46		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Cadmium	ND		0.57		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Chromium	84		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Cobalt	13		0.91		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Copper	29		6.8		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Lead	6.0		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Molybdenum	2.6		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Nickel	35		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Selenium	ND		4.6		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Silver	ND		1.1		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Thallium	ND		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Vanadium	76		2.3		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4
Zinc	22		6.8		mg/Kg	☼	05/26/12 16:24	05/29/12 22:42	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.011		mg/Kg	☼	05/25/12 19:03	05/29/12 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/30/12 10:13	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-114104/1-A
Matrix: Solid
Analysis Batch: 114092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Ethylbenzene	ND		5.0		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Toluene	ND		5.0		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Xylenes, Total	ND		10		ug/Kg		05/23/12 07:00	05/23/12 08:34	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/23/12 07:00	05/23/12 08:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131	05/23/12 07:00	05/23/12 08:34	1
1,2-Dichloroethane-d4 (Surr)	107		60 - 140	05/23/12 07:00	05/23/12 08:34	1
Toluene-d8 (Surr)	98		58 - 140	05/23/12 07:00	05/23/12 08:34	1

Lab Sample ID: LCS 720-114104/2-A
Matrix: Solid
Analysis Batch: 114092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.8		ug/Kg		100	70 - 130
Ethylbenzene	50.0	48.8		ug/Kg		98	80 - 137
Toluene	50.0	47.4		ug/Kg		95	80 - 128
m-Xylene & p-Xylene	100	103		ug/Kg		103	70 - 146
o-Xylene	50.0	52.8		ug/Kg		106	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		45 - 131
1,2-Dichloroethane-d4 (Surr)	100		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: LCS 720-114104/4-A
Matrix: Solid
Analysis Batch: 114092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	886		ug/Kg		89	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114104/3-A
Matrix: Solid
Analysis Batch: 114092

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	49.6		ug/Kg		99	70 - 130	0	20
Ethylbenzene	50.0	49.2		ug/Kg		98	80 - 137	1	20
Toluene	50.0	48.0		ug/Kg		96	80 - 128	1	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-114104/3-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	100	104		ug/Kg		104	70 - 146	1	20
o-Xylene	50.0	52.8		ug/Kg		106	70 - 140	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	98		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114104/5-A

Matrix: Solid

Analysis Batch: 114092

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	867		ug/Kg		87	61 - 128	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: MB 720-114287/1-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Ethylbenzene	ND		5.0		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Toluene	ND		5.0		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Xylenes, Total	ND		10		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/25/12 07:00	05/25/12 08:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		45 - 131	05/25/12 07:00	05/25/12 08:51	1
1,2-Dichloroethane-d4 (Surr)	111		60 - 140	05/25/12 07:00	05/25/12 08:51	1
Toluene-d8 (Surr)	99		58 - 140	05/25/12 07:00	05/25/12 08:51	1

Lab Sample ID: LCS 720-114287/2-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.2		ug/Kg		98	70 - 130
Ethylbenzene	50.0	48.2		ug/Kg		96	80 - 137
Toluene	50.0	48.4		ug/Kg		97	80 - 128
m-Xylene & p-Xylene	100	107		ug/Kg		107	70 - 146
o-Xylene	50.0	52.0		ug/Kg		104	70 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-114287/2-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114287

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		45 - 131
1,2-Dichloroethane-d4 (Surr)	108		60 - 140
Toluene-d8 (Surr)	100		58 - 140

Lab Sample ID: LCS 720-114287/4-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	891		ug/Kg		89	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		45 - 131
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	101		58 - 140

Lab Sample ID: LCSD 720-114287/3-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	48.8		ug/Kg		98	70 - 130	1	20
Ethylbenzene	50.0	47.2		ug/Kg		94	80 - 137	2	20
Toluene	50.0	47.8		ug/Kg		96	80 - 128	1	20
m-Xylene & p-Xylene	100	105		ug/Kg		105	70 - 146	1	20
o-Xylene	50.0	51.4		ug/Kg		103	70 - 140	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		45 - 131
1,2-Dichloroethane-d4 (Surr)	103		60 - 140
Toluene-d8 (Surr)	100		58 - 140

Lab Sample ID: LCSD 720-114287/5-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	894		ug/Kg		89	61 - 128	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	105		60 - 140
Toluene-d8 (Surr)	99		58 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

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

Lab Sample ID: MB 720-114191/1-A

Matrix: Solid

Analysis Batch: 114169

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/24/12 11:52	05/25/12 05:28	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/24/12 11:52	05/25/12 05:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 11:52	05/25/12 05:28	1
p-Terphenyl	97		38 - 148				05/24/12 11:52	05/25/12 05:28	1

Lab Sample ID: LCS 720-114191/2-A

Matrix: Solid

Analysis Batch: 114169

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.3	55.5		mg/Kg		67	36 - 112
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
p-Terphenyl	82		38 - 148				

Lab Sample ID: LCSD 720-114191/3-A

Matrix: Solid

Analysis Batch: 114169

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 114191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	83.0	47.8		mg/Kg		58	36 - 112	15	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
p-Terphenyl	68		38 - 148						

Lab Sample ID: MB 720-114255/1-A

Matrix: Solid

Analysis Batch: 114259

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/24/12 22:52	05/26/12 00:06	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/24/12 22:52	05/26/12 00:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/24/12 22:52	05/26/12 00:06	1
p-Terphenyl	91		38 - 148				05/24/12 22:52	05/26/12 00:06	1

Lab Sample ID: LCS 720-114255/2-A

Matrix: Solid

Analysis Batch: 114259

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114255

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.4	48.7		mg/Kg		59	36 - 112

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

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

Lab Sample ID: LCS 720-114255/2-A
Matrix: Solid
Analysis Batch: 114259

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 114255

Surrogate	LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl	78		38 - 148

Lab Sample ID: LCSD 720-114255/3-A
Matrix: Solid
Analysis Batch: 114259

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 114255

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Diesel Range Organics [C10-C28]	83.2	50.4		mg/Kg		61	36 - 112	3	35	
Surrogate	LCSD		Limits							
%Recovery	Qualifier									
p-Terphenyl	85		38 - 148							

Lab Sample ID: 720-42273-30 MS
Matrix: Solid
Analysis Batch: 114259

Client Sample ID: SR-SS-13 A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Diesel Range Organics [C10-C28]	40		94.0	143		mg/Kg	☼	114	50 - 150			
Surrogate	MS		Limits									
%Recovery	Qualifier											
p-Terphenyl	47		38 - 148									

Lab Sample ID: 720-42273-30 MSD
Matrix: Solid
Analysis Batch: 114259

Client Sample ID: SR-SS-13 A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Diesel Range Organics [C10-C28]	40		94.5	163		mg/Kg	☼	135	50 - 150	13	35	
Surrogate	MSD		Limits									
%Recovery	Qualifier											
p-Terphenyl	55		38 - 148									

Lab Sample ID: MB 720-114268/1-A
Matrix: Solid
Analysis Batch: 114258

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 114268

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/25/12 09:33	05/25/12 21:15	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/25/12 09:33	05/25/12 21:15	1
Surrogate	MB		Limits						
%Recovery	Qualifier								
Capric Acid (Surr)	0.0002		0 - 1				05/25/12 09:33	05/25/12 21:15	1
p-Terphenyl	114		38 - 148				05/25/12 09:33	05/25/12 21:15	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

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

Lab Sample ID: LCS 720-114268/2-A

Matrix: Solid

Analysis Batch: 114258

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.0	50.3		mg/Kg		61	36 - 112
Surrogate		LCS %Recovery	LCS Qualifier				Limits
<i>p-Terphenyl</i>		90					38 - 148

Lab Sample ID: LCSD 720-114268/3-A

Matrix: Solid

Analysis Batch: 114258

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 114268

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.4	51.3		mg/Kg		62	36 - 112	2	35
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
<i>p-Terphenyl</i>		87					38 - 148		

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-114159/1-A

Matrix: Solid

Analysis Batch: 114284

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114159

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Arsenic	ND		1.0		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Barium	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Beryllium	ND		0.10		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Cadmium	ND		0.13		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Chromium	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Cobalt	ND		0.20		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Copper	ND		1.5		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Lead	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Molybdenum	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Nickel	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Selenium	ND		1.0		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Silver	ND		0.25		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Thallium	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Vanadium	ND		0.50		mg/Kg		05/23/12 21:44	05/25/12 08:10	1
Zinc	ND		1.5		mg/Kg		05/23/12 21:44	05/25/12 08:10	1

Lab Sample ID: LCS 720-114159/2-A

Matrix: Solid

Analysis Batch: 114284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114159

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	45.9		mg/Kg		92	80 - 120
Arsenic	50.0	47.7		mg/Kg		95	80 - 120
Barium	50.0	51.1		mg/Kg		102	80 - 120

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

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

Lab Sample ID: LCS 720-114159/2-A

Matrix: Solid

Analysis Batch: 114284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114159

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Beryllium	50.0	49.9		mg/Kg		100	80 - 120	
Cadmium	50.0	47.2		mg/Kg		94	80 - 120	
Chromium	50.0	48.6		mg/Kg		97	80 - 120	
Cobalt	50.0	49.7		mg/Kg		99	80 - 120	
Copper	50.0	49.5		mg/Kg		99	80 - 120	
Lead	50.0	48.9		mg/Kg		98	80 - 120	
Molybdenum	50.0	48.8		mg/Kg		98	80 - 120	
Nickel	50.0	48.3		mg/Kg		97	80 - 120	
Selenium	50.0	46.3		mg/Kg		93	80 - 120	
Silver	25.0	23.9		mg/Kg		95	80 - 120	
Thallium	50.0	48.7		mg/Kg		97	80 - 120	
Vanadium	50.0	49.5		mg/Kg		99	80 - 120	
Zinc	50.0	48.3		mg/Kg		97	80 - 120	

Lab Sample ID: LCSD 720-114159/3-A

Matrix: Solid

Analysis Batch: 114284

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114159

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Antimony	50.0	46.3		mg/Kg		93	80 - 120	1	20	
Arsenic	50.0	48.0		mg/Kg		96	80 - 120	1	20	
Barium	50.0	51.2		mg/Kg		102	80 - 120	0	20	
Beryllium	50.0	50.5		mg/Kg		101	80 - 120	1	20	
Cadmium	50.0	47.5		mg/Kg		95	80 - 120	1	20	
Chromium	50.0	49.1		mg/Kg		98	80 - 120	1	20	
Cobalt	50.0	50.1		mg/Kg		100	80 - 120	1	20	
Copper	50.0	49.9		mg/Kg		100	80 - 120	1	20	
Lead	50.0	49.3		mg/Kg		99	80 - 120	1	20	
Molybdenum	50.0	49.2		mg/Kg		98	80 - 120	1	20	
Nickel	50.0	48.7		mg/Kg		97	80 - 120	1	20	
Selenium	50.0	46.7		mg/Kg		93	80 - 120	1	20	
Silver	25.0	24.0		mg/Kg		96	80 - 120	0	20	
Thallium	50.0	49.0		mg/Kg		98	80 - 120	1	20	
Vanadium	50.0	50.1		mg/Kg		100	80 - 120	1	20	
Zinc	50.0	48.8		mg/Kg		98	80 - 120	1	20	

Lab Sample ID: LCSSRM 720-114159/25-A

Matrix: Solid

Analysis Batch: 114284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114159

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	51.4	24.3		mg/Kg		47	11 - 101	
Arsenic	136	117		mg/Kg		86	69 - 119	
Barium	549	522		mg/Kg		95	61 - 117	
Beryllium	251	232		mg/Kg		92	56 - 102	
Cadmium	87.9	77.7		mg/Kg		88	67 - 118	
Chromium	135	118		mg/Kg		88	67 - 121	
Cobalt	218	201		mg/Kg		92	64 - 133	
Copper	134	126		mg/Kg		94	68 - 126	
Lead	340	296		mg/Kg		87	62 - 113	

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

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

Lab Sample ID: LCSSRM 720-114159/25-A
Matrix: Solid
Analysis Batch: 114284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114159

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	51.5	44.8		mg/Kg		87	62 - 128
Nickel	288	254		mg/Kg		88	65 - 117
Selenium	203	173		mg/Kg		85	63 - 126
Silver	47.0	44.4		mg/Kg		95	51 - 130
Thallium	44.7	35.2		mg/Kg		79	64 - 124
Vanadium	148	132		mg/Kg		89	67 - 123
Zinc	433	383		mg/Kg		89	62 - 110

Lab Sample ID: MB 720-114372/1-A
Matrix: Solid
Analysis Batch: 114452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114372

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Arsenic	ND		1.0		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Barium	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Beryllium	ND		0.10		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Cadmium	ND		0.13		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Chromium	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Cobalt	ND		0.20		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Copper	ND		1.5		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Lead	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Molybdenum	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Nickel	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Selenium	ND		1.0		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Silver	ND		0.25		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Thallium	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Vanadium	ND		0.50		mg/Kg		05/26/12 16:24	05/29/12 21:32	1
Zinc	ND		1.5		mg/Kg		05/26/12 16:24	05/29/12 21:32	1

Lab Sample ID: LCS 720-114372/2-A
Matrix: Solid
Analysis Batch: 114452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114372

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	50.7		mg/Kg		101	80 - 120
Arsenic	50.0	51.7		mg/Kg		103	80 - 120
Barium	50.0	51.7		mg/Kg		103	80 - 120
Beryllium	50.0	52.5		mg/Kg		105	80 - 120
Cadmium	50.0	51.8		mg/Kg		104	80 - 120
Chromium	50.0	52.2		mg/Kg		104	80 - 120
Cobalt	50.0	52.3		mg/Kg		105	80 - 120
Copper	50.0	52.4		mg/Kg		105	80 - 120
Lead	50.0	52.9		mg/Kg		106	80 - 120
Molybdenum	50.0	53.0		mg/Kg		106	80 - 120
Nickel	50.0	52.6		mg/Kg		105	80 - 120
Selenium	50.0	50.6		mg/Kg		101	80 - 120
Silver	25.0	25.4		mg/Kg		102	80 - 120
Thallium	50.0	52.3		mg/Kg		105	80 - 120
Vanadium	50.0	52.4		mg/Kg		105	80 - 120

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

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

Lab Sample ID: LCS 720-114372/2-A

Matrix: Solid

Analysis Batch: 114452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114372

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	52.5		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 720-114372/3-A

Matrix: Solid

Analysis Batch: 114452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114372

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	50.0	49.6		mg/Kg		99	80 - 120	2	20
Arsenic	50.0	50.6		mg/Kg		101	80 - 120	2	20
Barium	50.0	50.8		mg/Kg		102	80 - 120	2	20
Beryllium	50.0	51.2		mg/Kg		102	80 - 120	3	20
Cadmium	50.0	50.6		mg/Kg		101	80 - 120	2	20
Chromium	50.0	51.1		mg/Kg		102	80 - 120	2	20
Cobalt	50.0	51.1		mg/Kg		102	80 - 120	2	20
Copper	50.0	51.1		mg/Kg		102	80 - 120	2	20
Lead	50.0	51.7		mg/Kg		103	80 - 120	2	20
Molybdenum	50.0	51.8		mg/Kg		104	80 - 120	2	20
Nickel	50.0	51.4		mg/Kg		103	80 - 120	2	20
Selenium	50.0	49.3		mg/Kg		99	80 - 120	3	20
Silver	25.0	24.8		mg/Kg		99	80 - 120	3	20
Thallium	50.0	51.1		mg/Kg		102	80 - 120	2	20
Vanadium	50.0	51.2		mg/Kg		102	80 - 120	2	20
Zinc	50.0	51.2		mg/Kg		102	80 - 120	2	20

Lab Sample ID: LCSSRM 720-114372/24-A

Matrix: Solid

Analysis Batch: 114452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114372

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	51.4	21.6		mg/Kg		42	11 - 101
Arsenic	136	125		mg/Kg		92	69 - 119
Barium	549	508		mg/Kg		92	61 - 117
Beryllium	251	239		mg/Kg		95	56 - 102
Cadmium	87.9	85.1		mg/Kg		97	67 - 118
Chromium	135	125		mg/Kg		93	67 - 121
Cobalt	218	211		mg/Kg		97	64 - 133
Copper	134	129		mg/Kg		97	68 - 126
Lead	340	316		mg/Kg		93	62 - 113
Molybdenum	51.5	48.1		mg/Kg		93	62 - 128
Nickel	288	274		mg/Kg		95	65 - 117
Selenium	203	188		mg/Kg		92	63 - 126
Silver	47.0	46.6		mg/Kg		99	51 - 130
Thallium	44.7	37.6		mg/Kg		84	64 - 124
Vanadium	148	136		mg/Kg		92	67 - 123
Zinc	433	406		mg/Kg		94	62 - 110

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-114327/1-A
Matrix: Solid
Analysis Batch: 114480

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/25/12 18:23	05/30/12 11:09	1

Lab Sample ID: LCS 720-114327/2-A
Matrix: Solid
Analysis Batch: 114480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.850		mg/Kg		102	80 - 120

Lab Sample ID: LCSD 720-114327/3-A
Matrix: Solid
Analysis Batch: 114480

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114327

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.858		mg/Kg		103	80 - 120	1	20

Lab Sample ID: MB 720-114330/1-A
Matrix: Solid
Analysis Batch: 114443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/25/12 19:03	05/29/12 20:39	1

Lab Sample ID: LCS 720-114330/2-A
Matrix: Solid
Analysis Batch: 114443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.809		mg/Kg		97	80 - 120

Lab Sample ID: LCSD 720-114330/3-A
Matrix: Solid
Analysis Batch: 114443

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114330

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.833		mg/Kg		100	80 - 120	3	20

Lab Sample ID: 720-42273-35 MS
Matrix: Solid
Analysis Batch: 114443

Client Sample ID: FCA-SS-01 A,B,C,D
Prep Type: Total/NA
Prep Batch: 114330

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.11		0.843	1.19	F	mg/Kg	☼	129	75 - 125

Lab Sample ID: 720-42273-35 MSD
Matrix: Solid
Analysis Batch: 114443

Client Sample ID: FCA-SS-01 A,B,C,D
Prep Type: Total/NA
Prep Batch: 114330

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.11		0.830	0.971		mg/Kg	☼	105	75 - 125	20	20

QC Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Method: Moisture - Percent Moisture

Lab Sample ID: 720-42273-5 DU

Matrix: Solid

Analysis Batch: 114468

Client Sample ID: SR-SS-05 A,B,C,D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	9.8		11		%		14	20

Lab Sample ID: 720-42273-1 DU

Matrix: Solid

Analysis Batch: 114473

Client Sample ID: SR-SS-05(1.0)-A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	10		11		%		8	20

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

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

GC/MS VOA

Analysis Batch: 114092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-1	SR-SS-05(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-6	SR-SS-06(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-11	SR-SS-07(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-16	SR-SS-08(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-21	SR-SS-12(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-26	SR-SS-13(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-31	FCA-SS-01(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-36	FCA-SS-02(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-41	FCA-SS-07(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-46	FCA-SS-03(1.0)-A	Total/NA	Solid	8260B	114104
720-42273-51	FCA-SS-04(1.0)-A	Total/NA	Solid	8260B	114104
LCS 720-114104/2-A	Lab Control Sample	Total/NA	Solid	8260B	114104
LCS 720-114104/4-A	Lab Control Sample	Total/NA	Solid	8260B	114104
LCSD 720-114104/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114104
LCSD 720-114104/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114104
MB 720-114104/1-A	Method Blank	Total/NA	Solid	8260B	114104

Prep Batch: 114104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-1	SR-SS-05(1.0)-A	Total/NA	Solid	5035	
720-42273-6	SR-SS-06(1.0)-A	Total/NA	Solid	5035	
720-42273-11	SR-SS-07(1.0)-A	Total/NA	Solid	5035	
720-42273-16	SR-SS-08(1.0)-A	Total/NA	Solid	5035	
720-42273-21	SR-SS-12(1.0)-A	Total/NA	Solid	5035	
720-42273-26	SR-SS-13(1.0)-A	Total/NA	Solid	5035	
720-42273-31	FCA-SS-01(1.0)-A	Total/NA	Solid	5035	
720-42273-36	FCA-SS-02(1.0)-A	Total/NA	Solid	5035	
720-42273-41	FCA-SS-07(1.0)-A	Total/NA	Solid	5035	
720-42273-46	FCA-SS-03(1.0)-A	Total/NA	Solid	5035	
720-42273-51	FCA-SS-04(1.0)-A	Total/NA	Solid	5035	
LCS 720-114104/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114104/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114104/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114104/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114104/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 114263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-57	FCS0-SS07(1.0)A	Total/NA	Solid	8260B	114287
LCS 720-114287/2-A	Lab Control Sample	Total/NA	Solid	8260B	114287
LCS 720-114287/4-A	Lab Control Sample	Total/NA	Solid	8260B	114287
LCSD 720-114287/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114287
LCSD 720-114287/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114287
MB 720-114287/1-A	Method Blank	Total/NA	Solid	8260B	114287

Prep Batch: 114287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-57	FCS0-SS07(1.0)A	Total/NA	Solid	5035	
LCS 720-114287/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114287/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114287/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114287/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

GC/MS VOA (Continued)

Prep Batch: 114287 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-114287/1-A	Method Blank	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 114169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-114191/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114191
LCS 720-114191/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114191
MB 720-114191/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114191

Prep Batch: 114191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-10	SR-SS-06 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-15	SR-SS-07 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-20	SR-SS-08 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-25	SR-SS-12 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114191/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCS 720-114191/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114191/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Prep Batch: 114255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-30	SR-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-30 MS	SR-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-30 MSD	SR-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-35	FCA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-40	FCA-SS-02 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-45	FCA-SS-07 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-50	FCA-SS-03 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42273-55	FCA-SS-04 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114255/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCS 720-114255/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114255/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-114268/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114268
LCS 720-114268/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114268
MB 720-114268/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114268

Analysis Batch: 114259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42273-10	SR-SS-06 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42273-15	SR-SS-07 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42273-20	SR-SS-08 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42273-25	SR-SS-12 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114191
720-42273-30 MS	SR-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255
720-42273-30 MSD	SR-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255
720-42273-35	FCA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255
720-42273-40	FCA-SS-02 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

GC Semi VOA (Continued)

Analysis Batch: 114259 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-45	FCA-SS-07 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255
720-42273-50	FCA-SS-03 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255
720-42273-55	FCA-SS-04 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255
LCS 720-114255/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114255
LCSD 720-114255/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114255
MB 720-114255/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114255

Prep Batch: 114268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-61	FCS0-SS07-A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114268/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114268/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114268/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-61	FCS0-SS07-A,B,C,D	Silica Gel Cleanup	Solid	8015B	114268

Analysis Batch: 114461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-30	SR-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114255

Metals

Prep Batch: 114159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Total/NA	Solid	3050B	
720-42273-10	SR-SS-06 A,B,C,D	Total/NA	Solid	3050B	
720-42273-15	SR-SS-07 A,B,C,D	Total/NA	Solid	3050B	
720-42273-20	SR-SS-08 A,B,C,D	Total/NA	Solid	3050B	
720-42273-25	SR-SS-12 A,B,C,D	Total/NA	Solid	3050B	
720-42273-30	SR-SS-13 A,B,C,D	Total/NA	Solid	3050B	
720-42273-35	FCA-SS-01 A,B,C,D	Total/NA	Solid	3050B	
720-42273-40	FCA-SS-02 A,B,C,D	Total/NA	Solid	3050B	
720-42273-45	FCA-SS-07 A,B,C,D	Total/NA	Solid	3050B	
720-42273-50	FCA-SS-03 A,B,C,D	Total/NA	Solid	3050B	
720-42273-55	FCA-SS-04 A,B,C,D	Total/NA	Solid	3050B	
LCS 720-114159/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-114159/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-114159/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-114159/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-10	SR-SS-06 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-15	SR-SS-07 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-20	SR-SS-08 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-25	SR-SS-12 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-30	SR-SS-13 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-35	FCA-SS-01 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-40	FCA-SS-02 A,B,C,D	Total/NA	Solid	6010B	114159

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Metals (Continued)

Analysis Batch: 114284 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-45	FCA-SS-07 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-50	FCA-SS-03 A,B,C,D	Total/NA	Solid	6010B	114159
720-42273-55	FCA-SS-04 A,B,C,D	Total/NA	Solid	6010B	114159
LCS 720-114159/2-A	Lab Control Sample	Total/NA	Solid	6010B	114159
LCSD 720-114159/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	114159
LCSSRM 720-114159/25-A	Lab Control Sample	Total/NA	Solid	6010B	114159
MB 720-114159/1-A	Method Blank	Total/NA	Solid	6010B	114159

Prep Batch: 114327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Total/NA	Solid	7471A	
720-42273-10	SR-SS-06 A,B,C,D	Total/NA	Solid	7471A	
720-42273-15	SR-SS-07 A,B,C,D	Total/NA	Solid	7471A	
720-42273-20	SR-SS-08 A,B,C,D	Total/NA	Solid	7471A	
720-42273-25	SR-SS-12 A,B,C,D	Total/NA	Solid	7471A	
720-42273-30	SR-SS-13 A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114327/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114327/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114327/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 114330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-35	FCA-SS-01 A,B,C,D	Total/NA	Solid	7471A	
720-42273-35 MS	FCA-SS-01 A,B,C,D	Total/NA	Solid	7471A	
720-42273-35 MSD	FCA-SS-01 A,B,C,D	Total/NA	Solid	7471A	
720-42273-40	FCA-SS-02 A,B,C,D	Total/NA	Solid	7471A	
720-42273-45	FCA-SS-07 A,B,C,D	Total/NA	Solid	7471A	
720-42273-50	FCA-SS-03 A,B,C,D	Total/NA	Solid	7471A	
720-42273-55	FCA-SS-04 A,B,C,D	Total/NA	Solid	7471A	
720-42273-61	FCS0-SS07-A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114330/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114330/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114330/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 114372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-61	FCS0-SS07-A,B,C,D	Total/NA	Solid	3050B	
LCS 720-114372/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-114372/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-114372/24-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-114372/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-35	FCA-SS-01 A,B,C,D	Total/NA	Solid	7471A	114330
720-42273-35 MS	FCA-SS-01 A,B,C,D	Total/NA	Solid	7471A	114330
720-42273-35 MSD	FCA-SS-01 A,B,C,D	Total/NA	Solid	7471A	114330
LCS 720-114330/2-A	Lab Control Sample	Total/NA	Solid	7471A	114330
LCSD 720-114330/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114330
MB 720-114330/1-A	Method Blank	Total/NA	Solid	7471A	114330

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Metals (Continued)

Analysis Batch: 114449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-40	FCA-SS-02 A,B,C,D	Total/NA	Solid	7471A	114330
720-42273-45	FCA-SS-07 A,B,C,D	Total/NA	Solid	7471A	114330
720-42273-50	FCA-SS-03 A,B,C,D	Total/NA	Solid	7471A	114330
720-42273-55	FCA-SS-04 A,B,C,D	Total/NA	Solid	7471A	114330
720-42273-61	FCS0-SS07-A,B,C,D	Total/NA	Solid	7471A	114330

Analysis Batch: 114452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-61	FCS0-SS07-A,B,C,D	Total/NA	Solid	6010B	114372
LCS 720-114372/2-A	Lab Control Sample	Total/NA	Solid	6010B	114372
LCS D 720-114372/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	114372
LCSSRM 720-114372/24-A	Lab Control Sample	Total/NA	Solid	6010B	114372
MB 720-114372/1-A	Method Blank	Total/NA	Solid	6010B	114372

Analysis Batch: 114480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Total/NA	Solid	7471A	114327
720-42273-10	SR-SS-06 A,B,C,D	Total/NA	Solid	7471A	114327
720-42273-15	SR-SS-07 A,B,C,D	Total/NA	Solid	7471A	114327
720-42273-20	SR-SS-08 A,B,C,D	Total/NA	Solid	7471A	114327
720-42273-25	SR-SS-12 A,B,C,D	Total/NA	Solid	7471A	114327
720-42273-30	SR-SS-13 A,B,C,D	Total/NA	Solid	7471A	114327
LCS 720-114327/2-A	Lab Control Sample	Total/NA	Solid	7471A	114327
LCS D 720-114327/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114327
MB 720-114327/1-A	Method Blank	Total/NA	Solid	7471A	114327

General Chemistry

Analysis Batch: 114468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-5	SR-SS-05 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-5 DU	SR-SS-05 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-10	SR-SS-06 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-15	SR-SS-07 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-20	SR-SS-08 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-25	SR-SS-12 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-30	SR-SS-13 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-35	FCA-SS-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-40	FCA-SS-02 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-45	FCA-SS-07 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-50	FCA-SS-03 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-55	FCA-SS-04 A,B,C,D	Total/NA	Solid	Moisture	
720-42273-61	FCS0-SS07-A,B,C,D	Total/NA	Solid	Moisture	

Analysis Batch: 114473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-1	SR-SS-05(1.0)-A	Total/NA	Solid	Moisture	
720-42273-1 DU	SR-SS-05(1.0)-A	Total/NA	Solid	Moisture	
720-42273-6	SR-SS-06(1.0)-A	Total/NA	Solid	Moisture	
720-42273-11	SR-SS-07(1.0)-A	Total/NA	Solid	Moisture	
720-42273-16	SR-SS-08(1.0)-A	Total/NA	Solid	Moisture	
720-42273-21	SR-SS-12(1.0)-A	Total/NA	Solid	Moisture	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

General Chemistry (Continued)

Analysis Batch: 114473 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42273-26	SR-SS-13(1.0)-A	Total/NA	Solid	Moisture	
720-42273-31	FCA-SS-01(1.0)-A	Total/NA	Solid	Moisture	
720-42273-36	FCA-SS-02(1.0)-A	Total/NA	Solid	Moisture	
720-42273-41	FCA-SS-07(1.0)-A	Total/NA	Solid	Moisture	
720-42273-46	FCA-SS-03(1.0)-A	Total/NA	Solid	Moisture	
720-42273-51	FCA-SS-04(1.0)-A	Total/NA	Solid	Moisture	
720-42273-57	FCS0-SS07(1.0)A	Total/NA	Solid	Moisture	



Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-05(1.0)-A

Lab Sample ID: 720-42273-1

Date Collected: 05/22/12 07:55

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 12:23	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: SR-SS-05 A,B,C,D

Lab Sample ID: 720-42273-5

Date Collected: 05/22/12 07:55

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114191	05/24/12 11:52	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/25/12 14:42	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:16	EFH	TAL SF
Total/NA	Prep	7471A			114327	05/25/12 18:23	CDT	TAL SF
Total/NA	Analysis	7471A		1	114480	05/30/12 12:03	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: SR-SS-06(1.0)-A

Lab Sample ID: 720-42273-6

Date Collected: 05/22/12 08:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 12:52	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: SR-SS-06 A,B,C,D

Lab Sample ID: 720-42273-10

Date Collected: 05/22/12 08:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114191	05/24/12 11:52	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/25/12 15:06	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:20	EFH	TAL SF
Total/NA	Prep	7471A			114327	05/25/12 18:23	CDT	TAL SF
Total/NA	Analysis	7471A		1	114480	05/30/12 12:10	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-07(1.0)-A

Lab Sample ID: 720-42273-11

Date Collected: 05/22/12 09:10

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 13:22	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: SR-SS-07 A,B,C,D

Lab Sample ID: 720-42273-15

Date Collected: 05/22/12 09:10

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114191	05/24/12 11:52	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/25/12 15:31	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:25	EFH	TAL SF
Total/NA	Prep	7471A			114327	05/25/12 18:23	CDT	TAL SF
Total/NA	Analysis	7471A		1	114480	05/30/12 12:12	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: SR-SS-08(1.0)-A

Lab Sample ID: 720-42273-16

Date Collected: 05/22/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 13:51	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: SR-SS-08 A,B,C,D

Lab Sample ID: 720-42273-20

Date Collected: 05/22/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114191	05/24/12 11:52	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/25/12 15:55	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:29	EFH	TAL SF
Total/NA	Prep	7471A			114327	05/25/12 18:23	CDT	TAL SF
Total/NA	Analysis	7471A		1	114480	05/30/12 12:15	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: SR-SS-12(1.0)-A

Lab Sample ID: 720-42273-21

Date Collected: 05/22/12 10:20

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 14:19	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: SR-SS-12 A,B,C,D

Lab Sample ID: 720-42273-25

Date Collected: 05/22/12 10:20

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114191	05/24/12 11:52	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		3	114259	05/25/12 16:19	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:34	EFH	TAL SF
Total/NA	Prep	7471A			114327	05/25/12 18:23	CDT	TAL SF
Total/NA	Analysis	7471A		1	114480	05/30/12 12:17	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: SR-SS-13(1.0)-A

Lab Sample ID: 720-42273-26

Date Collected: 05/22/12 10:50

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 14:48	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: SR-SS-13 A,B,C,D

Lab Sample ID: 720-42273-30

Date Collected: 05/22/12 10:50

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114255	05/24/12 22:52	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		5	114461	05/30/12 12:08	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:38	EFH	TAL SF
Total/NA	Prep	7471A			114327	05/25/12 18:23	CDT	TAL SF
Total/NA	Analysis	7471A		1	114480	05/30/12 12:20	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-01(1.0)-A

Lab Sample ID: 720-42273-31

Date Collected: 05/22/12 13:00

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 15:17	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-01 A,B,C,D

Lab Sample ID: 720-42273-35

Date Collected: 05/22/12 13:00

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114255	05/24/12 22:52	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		5	114259	05/25/12 20:02	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:43	EFH	TAL SF
Total/NA	Prep	7471A			114330	05/25/12 19:03	ET	TAL SF
Total/NA	Analysis	7471A		1	114443	05/29/12 20:52	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: FCA-SS-02(1.0)-A

Lab Sample ID: 720-42273-36

Date Collected: 05/22/12 13:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 15:46	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-02 A,B,C,D

Lab Sample ID: 720-42273-40

Date Collected: 05/22/12 13:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114255	05/24/12 22:52	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		2	114259	05/25/12 20:27	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 09:56	EFH	TAL SF
Total/NA	Prep	7471A			114330	05/25/12 19:03	ET	TAL SF
Total/NA	Analysis	7471A		1	114449	05/29/12 21:03	SK	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-07(1.0)-A

Lab Sample ID: 720-42273-41

Date Collected: 05/22/12 13:35

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 16:16	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-07 A,B,C,D

Lab Sample ID: 720-42273-45

Date Collected: 05/22/12 13:35

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114255	05/24/12 22:52	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/26/12 01:43	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 10:01	EFH	TAL SF
Total/NA	Prep	7471A			114330	05/25/12 19:03	ET	TAL SF
Total/NA	Analysis	7471A		1	114449	05/29/12 21:06	SK	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: FCA-SS-03(1.0)-A

Lab Sample ID: 720-42273-46

Date Collected: 05/22/12 14:30

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 16:45	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-03 A,B,C,D

Lab Sample ID: 720-42273-50

Date Collected: 05/22/12 14:30

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114255	05/24/12 22:52	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/26/12 02:08	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 10:05	EFH	TAL SF
Total/NA	Prep	7471A			114330	05/25/12 19:03	ET	TAL SF
Total/NA	Analysis	7471A		1	114449	05/29/12 21:09	SK	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Client Sample ID: FCA-SS-04(1.0)-A

Lab Sample ID: 720-42273-51

Date Collected: 05/22/12 15:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114104	05/23/12 10:30	YB	TAL SF
Total/NA	Analysis	8260B		1	114092	05/23/12 17:14	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-04 A,B,C,D

Lab Sample ID: 720-42273-55

Date Collected: 05/22/12 15:15

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114255	05/24/12 22:52	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114259	05/26/12 02:32	DH	TAL SF
Total/NA	Prep	3050B			114159	05/23/12 21:44	ET	TAL SF
Total/NA	Analysis	6010B		4	114284	05/25/12 10:10	EFH	TAL SF
Total/NA	Prep	7471A			114330	05/25/12 19:03	ET	TAL SF
Total/NA	Analysis	7471A		1	114449	05/29/12 21:11	SK	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: FCS0-SS07(1.0)A

Lab Sample ID: 720-42273-57

Date Collected: 05/21/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/23/12 12:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 17:59	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCS0-SS07-A,B,C,D

Lab Sample ID: 720-42273-61

Date Collected: 05/21/12 09:40

Matrix: Solid

Date Received: 05/22/12 18:40

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114268	05/25/12 09:33	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114365	05/26/12 18:25	DH	TAL SF
Total/NA	Prep	7471A			114330	05/25/12 19:03	ET	TAL SF
Total/NA	Analysis	7471A		1	114449	05/29/12 21:14	SK	TAL SF
Total/NA	Prep	3050B			114372	05/26/12 16:24	ET	TAL SF
Total/NA	Analysis	6010B		4	114452	05/29/12 22:42	BA	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Laboratory References:

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

Certification Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pleasanton	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Method Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42273-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF
Moisture	Percent Moisture	EPA	TAL SF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Sample Summary

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42273-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-42273-1	SR-SS-05(1.0)-A	Solid	05/22/12 07:55	05/22/12 18:40
720-42273-5	SR-SS-05 A,B,C,D	Solid	05/22/12 07:55	05/22/12 18:40
720-42273-6	SR-SS-06(1.0)-A	Solid	05/22/12 08:15	05/22/12 18:40
720-42273-10	SR-SS-06 A,B,C,D	Solid	05/22/12 08:15	05/22/12 18:40
720-42273-11	SR-SS-07(1.0)-A	Solid	05/22/12 09:10	05/22/12 18:40
720-42273-15	SR-SS-07 A,B,C,D	Solid	05/22/12 09:10	05/22/12 18:40
720-42273-16	SR-SS-08(1.0)-A	Solid	05/22/12 09:40	05/22/12 18:40
720-42273-20	SR-SS-08 A,B,C,D	Solid	05/22/12 09:40	05/22/12 18:40
720-42273-21	SR-SS-12(1.0)-A	Solid	05/22/12 10:20	05/22/12 18:40
720-42273-25	SR-SS-12 A,B,C,D	Solid	05/22/12 10:20	05/22/12 18:40
720-42273-26	SR-SS-13(1.0)-A	Solid	05/22/12 10:50	05/22/12 18:40
720-42273-30	SR-SS-13 A,B,C,D	Solid	05/22/12 10:50	05/22/12 18:40
720-42273-31	FCA-SS-01(1.0)-A	Solid	05/22/12 13:00	05/22/12 18:40
720-42273-35	FCA-SS-01 A,B,C,D	Solid	05/22/12 13:00	05/22/12 18:40
720-42273-36	FCA-SS-02(1.0)-A	Solid	05/22/12 13:15	05/22/12 18:40
720-42273-40	FCA-SS-02 A,B,C,D	Solid	05/22/12 13:15	05/22/12 18:40
720-42273-41	FCA-SS-07(1.0)-A	Solid	05/22/12 13:35	05/22/12 18:40
720-42273-45	FCA-SS-07 A,B,C,D	Solid	05/22/12 13:35	05/22/12 18:40
720-42273-46	FCA-SS-03(1.0)-A	Solid	05/22/12 14:30	05/22/12 18:40
720-42273-50	FCA-SS-03 A,B,C,D	Solid	05/22/12 14:30	05/22/12 18:40
720-42273-51	FCA-SS-04(1.0)-A	Solid	05/22/12 15:15	05/22/12 18:40
720-42273-55	FCA-SS-04 A,B,C,D	Solid	05/22/12 15:15	05/22/12 18:40
720-42273-57	FCS0-SS07(1.0)A	Solid	05/21/12 09:40	05/22/12 18:40
720-42273-61	FCS0-SS07-A,B,C,D	Solid	05/21/12 09:40	05/22/12 18:40





Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720.42273

Lab No. Foot America
 Address Remediation CA

138458

Project Contact (Hardcopy or PDF To):

California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address):

Chain-of-Custody Record and Analysis Request

Laboratory: T. Angus

Sampler: titany.angus@ers.com
C. Walker & T. Bennett

Analysis Request

Phone No.:

Fax No.:

Project Address: Down Headlands

Project Number:

Phase # / Task #

Project Name: Down Headlands

Project Manager: T. Angus

Project Designation

12 hr/ 24 hr/ 48 hr/ 72 hr (STD, 1 wk) TAT

Number of Containers

Comments

For Lab Use Only

Sample Designation	Date	Time	802	encore	Container		Matrix		Soil	Water	Analysis Request	TAT	Number of Containers	Comments	For Lab Use Only
					Headlands	Down	X	X							
SR-SS-05(1.01)-A	5/22/12	0755	X	X			X	X	X	X	1	1			
SR-SS-05(1.5)-B	0745	X	X			X	X	X	X	X	1	1			
SR-SS-05(2.0)-C	0805	X	X			X	X	X	X	X	1	1			
SR-SS-05(2.5)-D	0757	X	X			X	X	X	X	X	1	1			
SR-SS-06(1.0)-A	0815	X	X			X	X	X	X	X	1	1			
SR-SS-06(1.5)-B	0825	X	X			X	X	X	X	X	1	1			
SR-SS-06(2.0)-C	0830	X	X			X	X	X	X	X	1	1			
SR-SS-06(2.5)-D	0835	X	X			X	X	X	X	X	1	1			
SR-SS-07(1.01)-A	0910	X	X			X	X	X	X	X	1	1			
SR-SS-07(1.5)-B	0920	X	X			X	X	X	X	X	1	1			

Remarks: composite A, B, C & D for TPH-MMO, DDO & CAM 17. Silica gel cleanup.

Relinquished by: [Signature] Date: 5/22/12 Time: 1600 Received by: [Signature]

Relinquished by: [Signature] Date: 5/22/12 Time: 1840 Received by: [Signature]

Relinquished by: [Signature] Date: 5/21/12 Time: 1800 Received by: [Signature]

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553
Temp 1.9.1.8c



Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720.42273

Lab No. Test America
 Address Per San Francisco CA

Project Contact (Hardcopy or PDF To): T. Angus California EDF Report? Yes No

Laboratory: Test America Navy EDD Report? Yes No

Electronic Deliverables To (Email Address): tiffany.angus@errg.com

Phone No.: 415-738-58 Fax No.: 415-738-58 Sampler: C. Walker & T. Bevine

Project Number: 2012-031 Phase # / Task # 1

Project Name: Bunker D Project Address: Main Headquarters

Project Manager: T. Angus

Sample Designation	Date	Time	Container		Matrix		Soil	Water	Analysis Request	12 hr	24 hr	48 hr	72 hr	STD (1 wk) TAT	Number of Containers	Comments	For Lab Use Only
			502	Enclosed													
SR-SS-07(2.0)-C	5/22/12	0905	X		X		X	X	CAM 17 metal	X	X	X	X		1		
SR-SS-07(0.5)-D		0900	X		X		X	X	TPH MRO, DRO	X	X	X	X		1		
SR-SS-08(1.0)-A		0940	X	X	X		X	X	TPH GRO & BTEX	X	X	X	X		1		
SR-SS-08(1.5)-B		0950	X		X		X	X		X	X	X	X		1		
SR-SS-08(2.0)-C		1010	X		X		X	X		X	X	X	X		1		
SR-SS-08(2.5)-D		1000	X		X		X	X		X	X	X	X		1		
SR-SS-12(1.0)-A		1020	X	X	X		X	X		X	X	X	X		1		
SR-SS-12(1.5)-B		1015	X	X	X		X	X		X	X	X	X		1		
SR-SS-12(2.0)-C		1040	X		X		X	X		X	X	X	X		1		
SR-SS-12(0.5)-D		1030	X		X		X	X		X	X	X	X		1		

Relinquished by: [Signature] Date: 5/22/12 Time: 1600 Received by: [Signature]

Relinquished by: [Signature] Date: 5/22/12 Time: 1840 Received by: [Signature]

Relinquished by: [Signature] Date: 5/22/12 Time: 1840 Received by: [Signature]

Relinquished by: [Signature] Date: 5/22/12 Time: 1840 Received by: [Signature]

Remarks: Composite A.R. Q.I.T.D for TPH MRO, DRO & CAM 17. Silica gel cleanup.

Bill to: Engineering / Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, CA 94553



Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-4473

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): **T. Amrus**
 Laboratory: **T. Amrus**
 Test America

California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address): Yes No

Phone No.: **415-330-3658** Fax No.:
 Project Number: **2012-031** Phase # / Task #
 Project Name: **Bunker rd** Project Address: **Martin Hernandez**
 Sampler: **C. Walker** **T. Amrus**
 Email: **t.amrus@errg.com**

Project Manager: **T. Amrus**

Sample Designation	Date	Time	Soil	Water	Container	Matrix	
						Soil	Water
SR-SS-13(1.0)-A	5/24/12	1050	X	X		X	X
SR-SS-13(1.5)-B		1055	X	X		X	X
SR-SS-13(2.0)-C		1110	X	X		X	X
SR-SS-13(0.5)-D		1115	X	X		X	X
FCA-SS-01(1.0)-A		1300	X	X		X	X
FCA-SS-01(1.5)-R		1250	X	X		X	X
FCA-SS-01(2.0)-C		1305	X	X		X	X
FCA-SS-01(0.5)-D		1248	X	X		X	X
FCA-SS-02(1.0)-A		1315	X	X		X	X
FCA-SS-02(1.5)-B		1311	X	X		X	X

Remarks: **CAM 17**
TPH-MRO, PRO
TPH-GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr/ (STD) (wk) TAT

Number of Containers

Comments

For Lab Use Only

Relinquished by: **[Signature]** Date: **5/22/12** Time: **1840** Received by: **[Signature]** Time: **1607**

Relinquished by: **[Signature]** Date: **5/22/12** Time: **1840** Received by: **[Signature]** Time: **1840**

Relinquished by: **[Signature]** Date: **9/16/12** Time: **1840** Received by: **[Signature]** Time: **1840**

Bill to: **Engineering / Remediation Resources Group, Inc.**
4585 Pacheco Blvd, Suite 200
Martinez, CA 94553

Lab No. **Test America**
 Address **pleasanton CA**

135458



Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42273

Lab No. T. Amorus
 Address Robertson

Page 4 of 5
138458

Project Contact (Hardcopy or PDF To):

California EDF Report? Yes No

Chain-of-Custody Record and Analysis Request

Laboratory:

Navy EDD Report? Yes No

Analysis Request

Test America

Electronic Deliverables To (Email Address):

tiffany.amorus@errg.com
C. Walker, T. Bennett

Phone No.:

Fax No.:

Project Number:

Project Address:

2012-031

Phase # / Task #

Project Name:

Project Address:

Baker

Marine Headquarters

Project Manager:

Sampling

Container

Matrix

T. Amorus

Sample Designation 9.5

Date

Time

Soil

Water

CAM 17
TPH-MRO, DRO
TPH-GAO + BTX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD 1 wk) TAT

Number of Containers

Comments

For Lab Use Only

Sample Designation	Date	Time	Soil	Water	Matrix	Analysis Request	TAT	Number of Containers	Comments	For Lab Use Only
ECA-SS-02 (2.0)-C	5/17/12	1325	X	X	X	X	X	1		
ECA-SS-02 (1.0)-D	5/17/12	1325	X	X	X	X	X	1		
ECA-SS-02 (1.0)-A	5/17/12	1335	X	X	X	X	X	1		
ECA-SS-02 (1.5)-B	5/17/12	1340	X	X	X	X	X	1		
ECA-SS-02 (2.0)-C	5/17/12	1345	X	X	X	X	X	1		
ECA-SS-02 (2.5)-D	5/17/12	1342	X	X	X	X	X	1		
ECA-SS-03 (1.0)-A	5/17/12	1430	X	X	X	X	X	4		
ECA-SS-03 (1.5)-B	5/17/12	1415	X	X	X	X	X	1		
ECA-SS-03 (2.0)-C	5/17/12	1510	X	X	X	X	X	1		
ECA-SS-03 (2.5)-D	5/17/12	1510	X	X	X	X	X	1		

Relinquished by:

Date

Time

Received by:

Remarks:

Composite A, B, C, & D for TPH-MRO, DRO & CAM 17

Relinquished by:

Date

Time

Received by:

Remarks:

Silt CA gel cleanup

Relinquished by:

Date

Time

Received by Laboratory:

Bill to:

Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553



Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553
 Phone: (925) 969-0750
 Fax: (925) 969-0751

Lab No. 722-42273
 Address Tej America

Page 5 of 5
128458

Project Contact (Hardcopy or PDF To): California EDF Report? Yes No

Laboratory: T. Angus Navy EDD Report? Yes No

Test America Electronic Deliverables To (Email Address): Yes No

Phone No.: 415.730.7658 Fax No.: [Blank] Sampler: T. Bennet and C. Walker

Project Number: [Blank] Phase # / Task # [Blank]

Project Name: Bunker Rd Soil Sampling Project Address: Bunker Road

Project Manager: [Blank]

Sample Designation	Date	Time	Boz	Container	Matrix		Soil	Water	TPH diesel, and motor oil (EPA 8015)	CAM 17 metals 6010B	TPH gas and BTEX (EPA 8260)	STD (1 wk) TAT	Number of Containers	Comments	For Lab Use Only
					Soil	Water									
FCA-SS-04(1.0)-A	5/27/12	1515	X	X	X	X	X	X	X	X	X	X	4	HOLD	
FCA-SS-04(1.5)-B		1530	X	X	X	X	X	X	X	X	X				
FCA-SS-04(0.5)-C		1550	X	X	X	X	X	X	X	X	X				
FCA-SS-04(1.5)-D		1545	X	X	X	X	X	X	X	X	X				
FCA-TPH		1540	X	X	X	X	X	X	X	X	X				

Relinquished by:	Date	Time	Received by:	Date	Time	Received by:
[Signature]	5/22/12	1600	[Signature]	5/22/12	1840	[Signature]
[Signature]	5/22/12	1840	[Signature]	5/22/12	1840	[Signature]

Remarks: Composite A, B, C & D for TPH-MRO, DRO & CAM 17 stick gel cleanup

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

Sharma, Dimple

From: Tiffany Angus [tiffany.angus@errg.com]
Sent: Wednesday, May 23, 2012 6:03 PM
To: Sharma, Dimple
Subject: RE: Files from 720-42273-1 Bunker Rd-Marine Headlands

I realized at the end of the day I was missing those! I will submit their counter parts (for compositing) tomorrow- are all three encores filled? They should be.

Thanks Dimple!

Tiffany Angus
ENGINEERING/REMEDICATION RESOURCES GROUP, INC.
115 Sansome Street, Suite 200, San Francisco, CA 94104
Direct: 415-848-7117
tiffany.angus@errg.com

From: Sharma, Dimple [dimple.sharma@testamericainc.com]
Sent: Wednesday, May 23, 2012 3:01 PM
To: Tiffany Angus
Subject: Files from 720-42273-1 Bunker Rd-Marine Headlands

Received 3 encores and 1 jar not listed on coc with the sample id FCS0-SS07(1.0)A sampled 5-21-12 @ 9:40. One of the encore bags read FCSS0-SS07(1.0)A. Also received 1 jar not listed on coc. FCS0-SS07(1.5)B sampled 5-21-12 @ 10:00. Logged both on hold.

DIMPLE SHARMA

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

Reference: [104719]
Attachments: 1

Login Sample Receipt Checklist

Client: Engineering Remediation Resources Group.

Job Number: 720-42273-1

Login Number: 42273

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Apostol, Anita

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-42296-1

Client Project/Site: Bunker Rd-Marin Headlands

For:

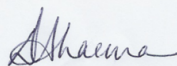
Engineering Remediation Resources Group.

115 Sansome Street

Suite 200

San Francisco, California 94104

Attn: Tiffany Angus



Authorized for release by:

5/31/2012 4:45:17 PM

Dimple Sharma

Project Manager I

dimple.sharma@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Definitions/Glossary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marin Headlands

TestAmerica Job ID: 720-42296-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Job ID: 720-42296-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-42296-1

Comments

No additional comments.

Receipt

The samples were received on 5/23/2012 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 2.7° C.

Except:

The Chain-of-Custody (COC) was not properly filled out. Page 3 no analyses are marked off on the COC.

GC/MS VOA

No analytical or quality issues were noted.

GC Semi VOA

Method 8015B: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: FCA-SS-10 A,B,C,D (720-42296-25), FCA-SS-11 A,B,C,D (720-42296-30).

Method 8015B: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: FCA-SS-09 A,B,C,D (720-42296-20).

No other analytical or quality issues were noted.

Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 114421 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-05 (1.0) - A

Lab Sample ID: 720-42296-1

No Detections

Client Sample ID: FCA-SS-05 A,B,C,D

Lab Sample ID: 720-42296-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	12		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	82		55		mg/Kg	1	*	8015B	Silica Gel Cleanup
Barium	150		2.2		mg/Kg	4	*	6010B	Total/NA
Chromium	28		2.2		mg/Kg	4	*	6010B	Total/NA
Cobalt	8.4		0.88		mg/Kg	4	*	6010B	Total/NA
Copper	26		6.6		mg/Kg	4	*	6010B	Total/NA
Lead	13		2.2		mg/Kg	4	*	6010B	Total/NA
Nickel	22		2.2		mg/Kg	4	*	6010B	Total/NA
Vanadium	38		2.2		mg/Kg	4	*	6010B	Total/NA
Zinc	34		6.6		mg/Kg	4	*	6010B	Total/NA
Mercury	0.052		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-08 (1.0) - A

Lab Sample ID: 720-42296-6

No Detections

Client Sample ID: FCA-SS-08 A,B,C,D

Lab Sample ID: 720-42296-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	17		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	92		55		mg/Kg	1	*	8015B	Silica Gel Cleanup
Barium	270		2.1		mg/Kg	4	*	6010B	Total/NA
Chromium	52		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	18		0.83		mg/Kg	4	*	6010B	Total/NA
Copper	57		6.2		mg/Kg	4	*	6010B	Total/NA
Lead	14		2.1		mg/Kg	4	*	6010B	Total/NA
Nickel	44		2.1		mg/Kg	4	*	6010B	Total/NA
Vanadium	59		2.1		mg/Kg	4	*	6010B	Total/NA
Zinc	59		6.2		mg/Kg	4	*	6010B	Total/NA
Mercury	0.11		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: FCA-SS-06 (1.0) - A

Lab Sample ID: 720-42296-11

No Detections

Client Sample ID: FCA-SS-06 A,B,C,D

Lab Sample ID: 720-42296-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	15		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	88		54		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	4.5		4.2		mg/Kg	4	*	6010B	Total/NA
Barium	190		2.1		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.42		0.42		mg/Kg	4	*	6010B	Total/NA
Chromium	30		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	11		0.83		mg/Kg	4	*	6010B	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-06 A,B,C,D (Continued)

Lab Sample ID: 720-42296-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	37		6.2		mg/Kg	4	☼	6010B	Total/NA
Lead	17		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	30		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	46		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	47		6.2		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.041		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCA-SS-09 (0.25) - A

Lab Sample ID: 720-42296-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	72		5.5		ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: FCA-SS-09 A,B,C,D

Lab Sample ID: 720-42296-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	110		11		mg/Kg	10	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	740		540		mg/Kg	10	☼	8015B	Silica Gel Cleanup
Arsenic	4.7		4.3		mg/Kg	4	☼	6010B	Total/NA
Barium	230		2.1		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.48		0.43		mg/Kg	4	☼	6010B	Total/NA
Chromium	42		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	19		0.86		mg/Kg	4	☼	6010B	Total/NA
Copper	43		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	16		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	41		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	59		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	53		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.51		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCA-SS-10 (0.5) - A

Lab Sample ID: 720-42296-21

No Detections

Client Sample ID: FCA-SS-10 A,B,C,D

Lab Sample ID: 720-42296-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	120		11		mg/Kg	10	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	600		530		mg/Kg	10	☼	8015B	Silica Gel Cleanup
Arsenic	5.3		4.2		mg/Kg	4	☼	6010B	Total/NA
Barium	200		2.1		mg/Kg	4	☼	6010B	Total/NA
Chromium	38		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	18		0.85		mg/Kg	4	☼	6010B	Total/NA
Copper	49		6.3		mg/Kg	4	☼	6010B	Total/NA
Lead	19		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	49		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	72		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	76		6.3		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.084		0.010		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCA-SS-11 (0.5) A

Lab Sample ID: 720-42296-26

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-11 (0.5) A (Continued)

Lab Sample ID: 720-42296-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	110		4.8		ug/Kg	1	*	8260B	Total/NA

Client Sample ID: FCA-SS-11 A,B,C,D

Lab Sample ID: 720-42296-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	180		11		mg/Kg	10	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	790		550		mg/Kg	10	*	8015B	Silica Gel Cleanup
Arsenic	6.5		4.1		mg/Kg	4	*	6010B	Total/NA
Barium	170		2.1		mg/Kg	4	*	6010B	Total/NA
Chromium	33		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	16		0.82		mg/Kg	4	*	6010B	Total/NA
Copper	39		6.2		mg/Kg	4	*	6010B	Total/NA
Lead	12		2.1		mg/Kg	4	*	6010B	Total/NA
Nickel	31		2.1		mg/Kg	4	*	6010B	Total/NA
Vanadium	66		2.1		mg/Kg	4	*	6010B	Total/NA
Zinc	47		6.2		mg/Kg	4	*	6010B	Total/NA
Mercury	0.13		0.010		mg/Kg	1	*	7471A	Total/NA

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-05 (1.0) - A

Lab Sample ID: 720-42296-1

Date Collected: 05/23/12 09:55

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 87.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.1		ug/Kg	☼	05/24/12 08:10	05/24/12 11:58	1
Ethylbenzene	ND		5.1		ug/Kg	☼	05/24/12 08:10	05/24/12 11:58	1
Toluene	ND		5.1		ug/Kg	☼	05/24/12 08:10	05/24/12 11:58	1
Xylenes, Total	ND		10		ug/Kg	☼	05/24/12 08:10	05/24/12 11:58	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/24/12 08:10	05/24/12 11:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	77		45 - 131	05/24/12 08:10	05/24/12 11:58	1
1,2-Dichloroethane-d4 (Surr)	101		60 - 140	05/24/12 08:10	05/24/12 11:58	1
Toluene-d8 (Surr)	95		58 - 140	05/24/12 08:10	05/24/12 11:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-05 A,B,C,D

Lab Sample ID: 720-42296-5

Date Collected: 05/23/12 09:50

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 89.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	12		1.1		mg/Kg	☼	05/25/12 09:33	05/26/12 05:46	1
Motor Oil Range Organics [C24-C36]	82		55		mg/Kg	☼	05/25/12 09:33	05/26/12 05:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				05/25/12 09:33	05/26/12 05:46	1
p-Terphenyl	84		38 - 148				05/25/12 09:33	05/26/12 05:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Arsenic	ND		4.4		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Barium	150		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Beryllium	ND		0.44		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Cadmium	ND		0.55		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Chromium	28		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Cobalt	8.4		0.88		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Copper	26		6.6		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Lead	13		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Molybdenum	ND		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Nickel	22		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Selenium	ND		4.4		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Silver	ND		1.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Thallium	ND		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Vanadium	38		2.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4
Zinc	34		6.6		mg/Kg	☼	05/29/12 15:36	05/31/12 01:20	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052		0.011		mg/Kg	☼	05/29/12 11:22	05/30/12 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-08 (1.0) - A

Lab Sample ID: 720-42296-6

Date Collected: 05/23/12 10:20

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 88.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg	☼	05/24/12 08:10	05/24/12 12:27	1
Ethylbenzene	ND		5.0		ug/Kg	☼	05/24/12 08:10	05/24/12 12:27	1
Toluene	ND		5.0		ug/Kg	☼	05/24/12 08:10	05/24/12 12:27	1
Xylenes, Total	ND		10		ug/Kg	☼	05/24/12 08:10	05/24/12 12:27	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/24/12 08:10	05/24/12 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		45 - 131	05/24/12 08:10	05/24/12 12:27	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/24/12 08:10	05/24/12 12:27	1
Toluene-d8 (Surr)	94		58 - 140	05/24/12 08:10	05/24/12 12:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-08 A,B,C,D

Lab Sample ID: 720-42296-10

Date Collected: 05/23/12 10:15

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	17		1.1		mg/Kg	☼	05/25/12 09:33	05/26/12 06:10	1
Motor Oil Range Organics [C24-C36]	92		55		mg/Kg	☼	05/25/12 09:33	05/26/12 06:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				05/25/12 09:33	05/26/12 06:10	1
p-Terphenyl	76		38 - 148				05/25/12 09:33	05/26/12 06:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Arsenic	ND		4.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Barium	270		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Beryllium	ND		0.42		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Cadmium	ND		0.52		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Chromium	52		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Cobalt	18		0.83		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Copper	57		6.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Lead	14		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Molybdenum	ND		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Nickel	44		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Selenium	ND		4.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Silver	ND		1.0		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Thallium	ND		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Vanadium	59		2.1		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4
Zinc	59		6.2		mg/Kg	☼	05/29/12 15:36	05/31/12 01:29	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.011		mg/Kg	☼	05/29/12 11:22	05/30/12 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-06 (1.0) - A

Lab Sample ID: 720-42296-11

Date Collected: 05/23/12 13:35

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 90.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.3		ug/Kg	☼	05/24/12 08:10	05/24/12 12:55	1
Ethylbenzene	ND		5.3		ug/Kg	☼	05/24/12 08:10	05/24/12 12:55	1
Toluene	ND		5.3		ug/Kg	☼	05/24/12 08:10	05/24/12 12:55	1
Xylenes, Total	ND		11		ug/Kg	☼	05/24/12 08:10	05/24/12 12:55	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/24/12 08:10	05/24/12 12:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	67		45 - 131	05/24/12 08:10	05/24/12 12:55	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/24/12 08:10	05/24/12 12:55	1
Toluene-d8 (Surr)	93		58 - 140	05/24/12 08:10	05/24/12 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-06 A,B,C,D

Lab Sample ID: 720-42296-15

Date Collected: 05/23/12 11:00

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	15		1.1		mg/Kg	☼	05/25/12 09:33	05/26/12 06:34	1
Motor Oil Range Organics [C24-C36]	88		54		mg/Kg	☼	05/25/12 09:33	05/26/12 06:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				05/25/12 09:33	05/26/12 06:34	1
p-Terphenyl	81		38 - 148				05/25/12 09:33	05/26/12 06:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Arsenic	4.5		4.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Barium	190		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Beryllium	0.42		0.42		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Cadmium	ND		0.52		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Chromium	30		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Cobalt	11		0.83		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Copper	37		6.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Lead	17		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Molybdenum	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Nickel	30		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Selenium	ND		4.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Silver	ND		1.0		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Thallium	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Vanadium	46		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4
Zinc	47		6.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:33	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041		0.011		mg/Kg	☼	05/29/12 11:22	05/30/12 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-09 (0.25) - A

Lab Sample ID: 720-42296-16

Date Collected: 05/23/12 11:10

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 93.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.5		ug/Kg	☼	05/24/12 08:10	05/24/12 13:25	1
Ethylbenzene	ND		5.5		ug/Kg	☼	05/24/12 08:10	05/24/12 13:25	1
Toluene	72		5.5		ug/Kg	☼	05/24/12 08:10	05/24/12 13:25	1
Xylenes, Total	ND		11		ug/Kg	☼	05/24/12 08:10	05/24/12 13:25	1
Gasoline Range Organics (GRO) -C5-C12	ND		270		ug/Kg	☼	05/24/12 08:10	05/24/12 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	75		45 - 131	05/24/12 08:10	05/24/12 13:25	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140	05/24/12 08:10	05/24/12 13:25	1
Toluene-d8 (Surr)	92		58 - 140	05/24/12 08:10	05/24/12 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.8		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-09 A,B,C,D

Lab Sample ID: 720-42296-20

Date Collected: 05/23/12 11:10

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	110		11		mg/Kg	☼	05/25/12 09:33	05/30/12 12:14	10
Motor Oil Range Organics [C24-C36]	740		540		mg/Kg	☼	05/25/12 09:33	05/30/12 12:14	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/25/12 09:33	05/30/12 12:14	10
p-Terphenyl	0	D X	38 - 148				05/25/12 09:33	05/30/12 12:14	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Arsenic	4.7		4.3		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Barium	230		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Beryllium	0.48		0.43		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Cadmium	ND		0.54		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Chromium	42		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Cobalt	19		0.86		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Copper	43		6.4		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Lead	16		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Molybdenum	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Nickel	41		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Selenium	ND		4.3		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Silver	ND		1.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Thallium	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Vanadium	59		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4
Zinc	53		6.4		mg/Kg	☼	05/29/12 15:38	05/31/12 01:38	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.51		0.011		mg/Kg	☼	05/29/12 11:22	05/30/12 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.7		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-10 (0.5) - A

Lab Sample ID: 720-42296-21

Date Collected: 05/23/12 11:25

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 94.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.7		ug/Kg	☼	05/24/12 08:10	05/25/12 23:01	1
Ethylbenzene	ND		4.7		ug/Kg	☼	05/24/12 08:10	05/25/12 23:01	1
Toluene	ND		4.7		ug/Kg	☼	05/24/12 08:10	05/25/12 23:01	1
Xylenes, Total	ND		9.5		ug/Kg	☼	05/24/12 08:10	05/25/12 23:01	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg	☼	05/24/12 08:10	05/25/12 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	75		45 - 131	05/24/12 08:10	05/25/12 23:01	1
1,2-Dichloroethane-d4 (Surr)	114		60 - 140	05/24/12 08:10	05/25/12 23:01	1
Toluene-d8 (Surr)	86		58 - 140	05/24/12 08:10	05/25/12 23:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.2		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-10 A,B,C,D

Lab Sample ID: 720-42296-25

Date Collected: 05/23/12 11:30

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 93.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	120		11		mg/Kg	☼	05/25/12 18:58	05/26/12 20:27	10
Motor Oil Range Organics [C24-C36]	600		530		mg/Kg	☼	05/25/12 18:58	05/26/12 20:27	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/25/12 18:58	05/26/12 20:27	10
p-Terphenyl	0	D X	38 - 148				05/25/12 18:58	05/26/12 20:27	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Arsenic	5.3		4.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Barium	200		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 13:34	4
Beryllium	ND		0.42		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Cadmium	ND		0.53		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Chromium	38		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Cobalt	18		0.85		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Copper	49		6.3		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Lead	19		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Molybdenum	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Nickel	49		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Selenium	ND		4.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Silver	ND		1.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Thallium	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Vanadium	72		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4
Zinc	76		6.3		mg/Kg	☼	05/29/12 15:38	05/31/12 01:51	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.084		0.010		mg/Kg	☼	05/29/12 11:22	05/30/12 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.3		0.10		%			05/30/12 10:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-11 (0.5) A

Lab Sample ID: 720-42296-26

Date Collected: 05/23/12 11:35

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 94.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.8		ug/Kg	☼	05/24/12 08:10	05/25/12 23:30	1
Ethylbenzene	ND		4.8		ug/Kg	☼	05/24/12 08:10	05/25/12 23:30	1
Toluene	110		4.8		ug/Kg	☼	05/24/12 08:10	05/25/12 23:30	1
Xylenes, Total	ND		9.6		ug/Kg	☼	05/24/12 08:10	05/25/12 23:30	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg	☼	05/24/12 08:10	05/25/12 23:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	73		45 - 131	05/24/12 08:10	05/25/12 23:30	1
1,2-Dichloroethane-d4 (Surr)	118		60 - 140	05/24/12 08:10	05/25/12 23:30	1
Toluene-d8 (Surr)	83		58 - 140	05/24/12 08:10	05/25/12 23:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.0		0.10		%			05/30/12 11:19	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-11 A,B,C,D

Lab Sample ID: 720-42296-30

Date Collected: 05/23/12 11:35

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	180		11		mg/Kg	☼	05/25/12 18:58	05/26/12 20:51	10
Motor Oil Range Organics [C24-C36]	790		550		mg/Kg	☼	05/25/12 18:58	05/26/12 20:51	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/25/12 18:58	05/26/12 20:51	10
p-Terphenyl	0	D X	38 - 148				05/25/12 18:58	05/26/12 20:51	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Arsenic	6.5		4.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Barium	170		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 13:38	4
Beryllium	ND		0.41		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Cadmium	ND		0.51		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Chromium	33		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Cobalt	16		0.82		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Copper	39		6.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Lead	12		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Molybdenum	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Nickel	31		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Selenium	ND		4.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Silver	ND		1.0		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Thallium	ND		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Vanadium	66		2.1		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4
Zinc	47		6.2		mg/Kg	☼	05/29/12 15:38	05/31/12 01:56	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.010		mg/Kg	☼	05/29/12 11:22	05/30/12 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 10:13	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-114189/1-A

Matrix: Solid

Analysis Batch: 114171

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/24/12 07:00	05/24/12 08:24	1
Ethylbenzene	ND		5.0		ug/Kg		05/24/12 07:00	05/24/12 08:24	1
Toluene	ND		5.0		ug/Kg		05/24/12 07:00	05/24/12 08:24	1
Xylenes, Total	ND		10		ug/Kg		05/24/12 07:00	05/24/12 08:24	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/24/12 07:00	05/24/12 08:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		45 - 131	05/24/12 07:00	05/24/12 08:24	1
1,2-Dichloroethane-d4 (Surr)	104		60 - 140	05/24/12 07:00	05/24/12 08:24	1
Toluene-d8 (Surr)	97		58 - 140	05/24/12 07:00	05/24/12 08:24	1

Lab Sample ID: LCS 720-114189/2-A

Matrix: Solid

Analysis Batch: 114171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.0		ug/Kg		98	70 - 130
Ethylbenzene	50.0	49.0		ug/Kg		98	80 - 137
Toluene	50.0	47.6		ug/Kg		95	80 - 128
m-Xylene & p-Xylene	100	104		ug/Kg		104	70 - 146
o-Xylene	50.0	54.0		ug/Kg		108	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCS 720-114189/4-A

Matrix: Solid

Analysis Batch: 114171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	897		ug/Kg		90	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114189/3-A

Matrix: Solid

Analysis Batch: 114171

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114189

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	50.2		ug/Kg		100	70 - 130	2	20
Ethylbenzene	50.0	48.8		ug/Kg		98	80 - 137	0	20
Toluene	50.0	47.2		ug/Kg		94	80 - 128	1	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-114189/3-A

Matrix: Solid

Analysis Batch: 114171

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114189

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	100	104		ug/Kg		104	70 - 146	0	20
o-Xylene	50.0	53.4		ug/Kg		107	70 - 140	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		45 - 131
1,2-Dichloroethane-d4 (Surr)	102		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: LCSD 720-114189/5-A

Matrix: Solid

Analysis Batch: 114171

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114189

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	879		ug/Kg		88	61 - 128	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	98		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: MB 720-114338/1-A

Matrix: Solid

Analysis Batch: 114319

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/25/12 19:00	05/25/12 20:30	1
Ethylbenzene	ND		5.0		ug/Kg		05/25/12 19:00	05/25/12 20:30	1
Toluene	ND		5.0		ug/Kg		05/25/12 19:00	05/25/12 20:30	1
Xylenes, Total	ND		10		ug/Kg		05/25/12 19:00	05/25/12 20:30	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/25/12 19:00	05/25/12 20:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		45 - 131	05/25/12 19:00	05/25/12 20:30	1
1,2-Dichloroethane-d4 (Surr)	113		60 - 140	05/25/12 19:00	05/25/12 20:30	1
Toluene-d8 (Surr)	95		58 - 140	05/25/12 19:00	05/25/12 20:30	1

Lab Sample ID: LCS 720-114338/2-A

Matrix: Solid

Analysis Batch: 114319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	50.8		ug/Kg		102	70 - 130
Ethylbenzene	50.0	49.6		ug/Kg		99	80 - 137
Toluene	50.0	49.4		ug/Kg		99	80 - 128
m-Xylene & p-Xylene	100	100		ug/Kg		100	70 - 146
o-Xylene	50.0	52.6		ug/Kg		105	70 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-114338/2-A

Matrix: Solid

Analysis Batch: 114319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114338

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		45 - 131
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	99		58 - 140

Lab Sample ID: LCS 720-114338/4-A

Matrix: Solid

Analysis Batch: 114319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	901		ug/Kg		90	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		45 - 131
1,2-Dichloroethane-d4 (Surr)	111		60 - 140
Toluene-d8 (Surr)	101		58 - 140

Lab Sample ID: LCSD 720-114338/3-A

Matrix: Solid

Analysis Batch: 114319

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114338

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	51.2		ug/Kg		102	70 - 130	1	20
Ethylbenzene	50.0	49.6		ug/Kg		99	80 - 137	0	20
Toluene	50.0	49.0		ug/Kg		98	80 - 128	1	20
m-Xylene & p-Xylene	100	100		ug/Kg		100	70 - 146	0	20
o-Xylene	50.0	52.4		ug/Kg		105	70 - 140	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		45 - 131
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	100		58 - 140

Lab Sample ID: LCSD 720-114338/5-A

Matrix: Solid

Analysis Batch: 114319

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114338

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	905		ug/Kg		90	61 - 128	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		45 - 131
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	100		58 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

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

Lab Sample ID: MB 720-114268/1-A

Matrix: Solid

Analysis Batch: 114258

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114268

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/25/12 09:33	05/25/12 21:15	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/25/12 09:33	05/25/12 21:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.0002		0 - 1				05/25/12 09:33	05/25/12 21:15	1
p-Terphenyl	114		38 - 148				05/25/12 09:33	05/25/12 21:15	1

Lab Sample ID: LCS 720-114268/2-A

Matrix: Solid

Analysis Batch: 114258

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.0	50.3		mg/Kg		61	36 - 112
Surrogate	%Recovery	Qualifier	Limits				
p-Terphenyl	90		38 - 148				

Lab Sample ID: LCSD 720-114268/3-A

Matrix: Solid

Analysis Batch: 114258

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 114268

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.4	51.3		mg/Kg		62	36 - 112	2	35
Surrogate	%Recovery	Qualifier	Limits						
p-Terphenyl	87		38 - 148						

Lab Sample ID: MB 720-114329/1-A

Matrix: Solid

Analysis Batch: 114364

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114329

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.98		mg/Kg		05/25/12 18:58	05/27/12 01:43	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		05/25/12 18:58	05/27/12 01:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.004		0 - 1				05/25/12 18:58	05/27/12 01:43	1
p-Terphenyl	98		38 - 148				05/25/12 18:58	05/27/12 01:43	1

Lab Sample ID: LCS 720-114329/2-A

Matrix: Solid

Analysis Batch: 114364

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114329

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.0	61.3		mg/Kg		75	36 - 112

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

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

Lab Sample ID: LCS 720-114329/2-A
Matrix: Solid
Analysis Batch: 114364

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 114329

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	99		38 - 148

Lab Sample ID: LCSD 720-114329/3-A
Matrix: Solid
Analysis Batch: 114364

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 114329

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.7	64.6		mg/Kg		78	36 - 112	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	94		38 - 148

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-114421/1-A
Matrix: Solid
Analysis Batch: 114534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Arsenic	ND		1.0		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Barium	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Beryllium	ND		0.10		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Cadmium	ND		0.13		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Chromium	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Cobalt	ND		0.20		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Copper	ND		1.5		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Lead	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Molybdenum	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Nickel	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Selenium	ND		1.0		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Silver	ND		0.25		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Thallium	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Vanadium	ND		0.50		mg/Kg		05/29/12 15:36	05/31/12 00:58	1
Zinc	ND		1.5		mg/Kg		05/29/12 15:36	05/31/12 00:58	1

Lab Sample ID: LCS 720-114421/2-A
Matrix: Solid
Analysis Batch: 114534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	47.7		mg/Kg		95	80 - 120
Arsenic	50.0	50.9		mg/Kg		102	80 - 120
Barium	50.0	54.0		mg/Kg		108	80 - 120
Beryllium	50.0	53.5		mg/Kg		107	80 - 120
Cadmium	50.0	49.9		mg/Kg		100	80 - 120
Chromium	50.0	53.1		mg/Kg		106	80 - 120
Cobalt	50.0	53.2		mg/Kg		106	80 - 120

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

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

Lab Sample ID: LCS 720-114421/2-A

Matrix: Solid

Analysis Batch: 114534

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	50.0	52.7		mg/Kg		105	80 - 120
Lead	50.0	52.4		mg/Kg		105	80 - 120
Molybdenum	50.0	52.1		mg/Kg		104	80 - 120
Nickel	50.0	51.2		mg/Kg		102	80 - 120
Selenium	50.0	49.0		mg/Kg		98	80 - 120
Silver	25.0	24.9		mg/Kg		100	80 - 120
Thallium	50.0	51.5		mg/Kg		103	80 - 120
Vanadium	50.0	53.8		mg/Kg		108	80 - 120
Zinc	50.0	52.3		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 720-114421/3-A

Matrix: Solid

Analysis Batch: 114534

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114421

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	50.0	48.3		mg/Kg		97	80 - 120	1	20
Arsenic	50.0	51.0		mg/Kg		102	80 - 120	0	20
Barium	50.0	54.1		mg/Kg		108	80 - 120	0	20
Beryllium	50.0	53.4		mg/Kg		107	80 - 120	0	20
Cadmium	50.0	50.4		mg/Kg		101	80 - 120	1	20
Chromium	50.0	53.1		mg/Kg		106	80 - 120	0	20
Cobalt	50.0	53.3		mg/Kg		107	80 - 120	0	20
Copper	50.0	52.8		mg/Kg		106	80 - 120	0	20
Lead	50.0	52.7		mg/Kg		105	80 - 120	1	20
Molybdenum	50.0	52.5		mg/Kg		105	80 - 120	1	20
Nickel	50.0	51.6		mg/Kg		103	80 - 120	1	20
Selenium	50.0	49.0		mg/Kg		98	80 - 120	0	20
Silver	25.0	25.0		mg/Kg		100	80 - 120	1	20
Thallium	50.0	51.8		mg/Kg		104	80 - 120	1	20
Vanadium	50.0	53.7		mg/Kg		107	80 - 120	0	20
Zinc	50.0	52.4		mg/Kg		105	80 - 120	0	20

Lab Sample ID: LCSSRM 720-114421/25-A

Matrix: Solid

Analysis Batch: 114534

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114421

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	51.4	23.1		mg/Kg		45	11 - 101
Arsenic	136	126		mg/Kg		92	69 - 119
Beryllium	251	254		mg/Kg		101	56 - 102
Cadmium	87.9	82.4		mg/Kg		94	67 - 118
Chromium	135	130		mg/Kg		96	67 - 121
Cobalt	218	219		mg/Kg		101	64 - 133
Copper	134	134		mg/Kg		100	68 - 126
Lead	340	327		mg/Kg		96	62 - 113
Molybdenum	51.5	49.4		mg/Kg		96	62 - 128
Nickel	288	272		mg/Kg		95	65 - 117
Selenium	203	184		mg/Kg		91	63 - 126
Silver	47.0	46.0		mg/Kg		98	51 - 130
Thallium	44.7	38.4		mg/Kg		86	64 - 124

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

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

Lab Sample ID: LCSSRM 720-114421/25-A
Matrix: Solid
Analysis Batch: 114534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114421

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	148	146		mg/Kg		98	67 - 123
Zinc	433	419		mg/Kg		97	62 - 110

Lab Sample ID: LCSSRM 720-114421/25-A
Matrix: Solid
Analysis Batch: 114569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114421

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	549	519		mg/Kg		95	61 - 117

Lab Sample ID: 720-42296-5 MS
Matrix: Solid
Analysis Batch: 114534

Client Sample ID: FCA-SS-05 A,B,C,D
Prep Type: Total/NA
Prep Batch: 114421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		54.0	17.9	F	mg/Kg	☼	33	75 - 125
Arsenic	ND		54.0	51.6		mg/Kg	☼	89	75 - 125
Barium	150		54.0	253	F	mg/Kg	☼	220	75 - 125
Beryllium	ND		54.0	54.2		mg/Kg	☼	100	75 - 125
Cadmium	ND		54.0	50.5		mg/Kg	☼	93	75 - 125
Chromium	28		54.0	88.6		mg/Kg	☼	117	75 - 125
Cobalt	8.4		54.0	66.3		mg/Kg	☼	109	75 - 125
Copper	26		54.0	82.7		mg/Kg	☼	110	75 - 125
Lead	13		54.0	65.1		mg/Kg	☼	99	75 - 125
Molybdenum	ND		54.0	44.2		mg/Kg	☼	81	75 - 125
Nickel	22		54.0	84.6		mg/Kg	☼	119	75 - 125
Selenium	ND		54.0	44.9		mg/Kg	☼	83	75 - 125
Silver	ND		27.0	25.8		mg/Kg	☼	95	75 - 125
Thallium	ND		54.0	50.8		mg/Kg	☼	94	75 - 125
Vanadium	38		54.0	101		mg/Kg	☼	124	75 - 125
Zinc	34		54.0	96.3		mg/Kg	☼	121	75 - 125

Lab Sample ID: 720-42296-5 MSD
Matrix: Solid
Analysis Batch: 114534

Client Sample ID: FCA-SS-05 A,B,C,D
Prep Type: Total/NA
Prep Batch: 114421

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND		53.5	16.3	F	mg/Kg	☼	30	75 - 125	9	20
Arsenic	ND		53.5	49.3		mg/Kg	☼	86	75 - 125	5	20
Barium	150		53.5	251	F	mg/Kg	☼	220	75 - 125	1	20
Beryllium	ND		53.5	52.5		mg/Kg	☼	97	75 - 125	3	20
Cadmium	ND		53.5	49.4		mg/Kg	☼	92	75 - 125	2	20
Chromium	28		53.5	85.6		mg/Kg	☼	112	75 - 125	3	20
Cobalt	8.4		53.5	63.8		mg/Kg	☼	105	75 - 125	4	20
Copper	26		53.5	81.4		mg/Kg	☼	109	75 - 125	2	20
Lead	13		53.5	66.4		mg/Kg	☼	103	75 - 125	2	20
Molybdenum	ND		53.5	42.2		mg/Kg	☼	78	75 - 125	5	20
Nickel	22		53.5	78.6		mg/Kg	☼	109	75 - 125	7	20
Selenium	ND		53.5	43.8		mg/Kg	☼	82	75 - 125	2	20
Silver	ND		26.8	25.3		mg/Kg	☼	95	75 - 125	2	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

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

Lab Sample ID: 720-42296-5 MSD

Matrix: Solid

Analysis Batch: 114534

Client Sample ID: FCA-SS-05 A,B,C,D

Prep Type: Total/NA

Prep Batch: 114421

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Thallium	ND		53.5	49.1		mg/Kg	✱	92	75 - 125	3	20
Vanadium	38		53.5	97.4		mg/Kg	✱	119	75 - 125	4	20
Zinc	34		53.5	93.7		mg/Kg	✱	118	75 - 125	3	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-114404/1-A

Matrix: Solid

Analysis Batch: 114492

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114404

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.010		mg/Kg		05/29/12 11:22	05/30/12 12:39	1

Lab Sample ID: LCS 720-114404/2-A

Matrix: Solid

Analysis Batch: 114492

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114404

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.833	0.790		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 720-114404/3-A

Matrix: Solid

Analysis Batch: 114492

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114404

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier				Limits		
Mercury	0.833	0.740		mg/Kg		89	80 - 120	7	20

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

GC/MS VOA

Analysis Batch: 114171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-1	FCA-SS-05 (1.0) - A	Total/NA	Solid	8260B	114189
720-42296-6	FCA-SS-08 (1.0) - A	Total/NA	Solid	8260B	114189
720-42296-11	FCA-SS-06 (1.0) - A	Total/NA	Solid	8260B	114189
720-42296-16	FCA-SS-09 (0.25) - A	Total/NA	Solid	8260B	114189
LCS 720-114189/2-A	Lab Control Sample	Total/NA	Solid	8260B	114189
LCS 720-114189/4-A	Lab Control Sample	Total/NA	Solid	8260B	114189
LCSD 720-114189/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114189
LCSD 720-114189/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114189
MB 720-114189/1-A	Method Blank	Total/NA	Solid	8260B	114189

Prep Batch: 114189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-1	FCA-SS-05 (1.0) - A	Total/NA	Solid	5035	
720-42296-6	FCA-SS-08 (1.0) - A	Total/NA	Solid	5035	
720-42296-11	FCA-SS-06 (1.0) - A	Total/NA	Solid	5035	
720-42296-16	FCA-SS-09 (0.25) - A	Total/NA	Solid	5035	
LCS 720-114189/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114189/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114189/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114189/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114189/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 114319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-21	FCA-SS-10 (0.5) - A	Total/NA	Solid	8260B	114338
720-42296-26	FCA-SS-11 (0.5) A	Total/NA	Solid	8260B	114338
LCS 720-114338/2-A	Lab Control Sample	Total/NA	Solid	8260B	114338
LCS 720-114338/4-A	Lab Control Sample	Total/NA	Solid	8260B	114338
LCSD 720-114338/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114338
LCSD 720-114338/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114338
MB 720-114338/1-A	Method Blank	Total/NA	Solid	8260B	114338

Prep Batch: 114338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-21	FCA-SS-10 (0.5) - A	Total/NA	Solid	5035	
720-42296-26	FCA-SS-11 (0.5) A	Total/NA	Solid	5035	
LCS 720-114338/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114338/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114338/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114338/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114338/1-A	Method Blank	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 114258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114268
720-42296-10	FCA-SS-08 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114268
720-42296-15	FCA-SS-06 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114268
LCS 720-114268/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114268
LCSD 720-114268/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114268
MB 720-114268/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114268

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

GC Semi VOA (Continued)

Prep Batch: 114268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42296-10	FCA-SS-08 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42296-15	FCA-SS-06 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42296-20	FCA-SS-09 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114268/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114268/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114268/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Prep Batch: 114329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-25	FCA-SS-10 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42296-30	FCA-SS-11 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114329/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114329/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114329/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-114329/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114329
LCSD 720-114329/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114329
MB 720-114329/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114329

Analysis Batch: 114365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-25	FCA-SS-10 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114329
720-42296-30	FCA-SS-11 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114329

Analysis Batch: 114462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-20	FCA-SS-09 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114268

Metals

Prep Batch: 114404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Total/NA	Solid	7471A	
720-42296-10	FCA-SS-08 A,B,C,D	Total/NA	Solid	7471A	
720-42296-15	FCA-SS-06 A,B,C,D	Total/NA	Solid	7471A	
720-42296-20	FCA-SS-09 A,B,C,D	Total/NA	Solid	7471A	
720-42296-25	FCA-SS-10 A,B,C,D	Total/NA	Solid	7471A	
720-42296-30	FCA-SS-11 A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114404/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114404/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114404/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 114421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Total/NA	Solid	3050B	
720-42296-5 MS	FCA-SS-05 A,B,C,D	Total/NA	Solid	3050B	
720-42296-5 MSD	FCA-SS-05 A,B,C,D	Total/NA	Solid	3050B	
720-42296-10	FCA-SS-08 A,B,C,D	Total/NA	Solid	3050B	
720-42296-15	FCA-SS-06 A,B,C,D	Total/NA	Solid	3050B	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42296-1

Metals (Continued)

Prep Batch: 114421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-20	FCA-SS-09 A,B,C,D	Total/NA	Solid	3050B	
720-42296-25	FCA-SS-10 A,B,C,D	Total/NA	Solid	3050B	
720-42296-30	FCA-SS-11 A,B,C,D	Total/NA	Solid	3050B	
LCS 720-114421/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-114421/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-114421/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-114421/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Total/NA	Solid	7471A	114404
720-42296-10	FCA-SS-08 A,B,C,D	Total/NA	Solid	7471A	114404
720-42296-15	FCA-SS-06 A,B,C,D	Total/NA	Solid	7471A	114404
720-42296-20	FCA-SS-09 A,B,C,D	Total/NA	Solid	7471A	114404
720-42296-25	FCA-SS-10 A,B,C,D	Total/NA	Solid	7471A	114404
720-42296-30	FCA-SS-11 A,B,C,D	Total/NA	Solid	7471A	114404
LCS 720-114404/2-A	Lab Control Sample	Total/NA	Solid	7471A	114404
LCSD 720-114404/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114404
MB 720-114404/1-A	Method Blank	Total/NA	Solid	7471A	114404

Analysis Batch: 114534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-5 MS	FCA-SS-05 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-5 MSD	FCA-SS-05 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-10	FCA-SS-08 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-15	FCA-SS-06 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-20	FCA-SS-09 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-25	FCA-SS-10 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-30	FCA-SS-11 A,B,C,D	Total/NA	Solid	6010B	114421
LCS 720-114421/2-A	Lab Control Sample	Total/NA	Solid	6010B	114421
LCSD 720-114421/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	114421
LCSSRM 720-114421/25-A	Lab Control Sample	Total/NA	Solid	6010B	114421
MB 720-114421/1-A	Method Blank	Total/NA	Solid	6010B	114421

Analysis Batch: 114569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-25	FCA-SS-10 A,B,C,D	Total/NA	Solid	6010B	114421
720-42296-30	FCA-SS-11 A,B,C,D	Total/NA	Solid	6010B	114421
LCSSRM 720-114421/25-A	Lab Control Sample	Total/NA	Solid	6010B	114421

General Chemistry

Analysis Batch: 114468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-5	FCA-SS-05 A,B,C,D	Total/NA	Solid	Moisture	
720-42296-10	FCA-SS-08 A,B,C,D	Total/NA	Solid	Moisture	
720-42296-15	FCA-SS-06 A,B,C,D	Total/NA	Solid	Moisture	
720-42296-20	FCA-SS-09 A,B,C,D	Total/NA	Solid	Moisture	
720-42296-25	FCA-SS-10 A,B,C,D	Total/NA	Solid	Moisture	
720-42296-30	FCA-SS-11 A,B,C,D	Total/NA	Solid	Moisture	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

General Chemistry (Continued)

Analysis Batch: 114473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42296-1	FCA-SS-05 (1.0) - A	Total/NA	Solid	Moisture	
720-42296-6	FCA-SS-08 (1.0) - A	Total/NA	Solid	Moisture	
720-42296-11	FCA-SS-06 (1.0) - A	Total/NA	Solid	Moisture	
720-42296-16	FCA-SS-09 (0.25) - A	Total/NA	Solid	Moisture	
720-42296-21	FCA-SS-10 (0.5) - A	Total/NA	Solid	Moisture	
720-42296-26	FCA-SS-11 (0.5) A	Total/NA	Solid	Moisture	



Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-05 (1.0) - A

Lab Sample ID: 720-42296-1

Date Collected: 05/23/12 09:55

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114189	05/24/12 08:10	YB	TAL SF
Total/NA	Analysis	8260B		1	114171	05/24/12 11:58	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-05 A,B,C,D

Lab Sample ID: 720-42296-5

Date Collected: 05/23/12 09:50

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114268	05/25/12 09:33	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114258	05/26/12 05:46	JZ	TAL SF
Total/NA	Prep	7471A			114404	05/29/12 11:22	ET	TAL SF
Total/NA	Analysis	7471A		1	114492	05/30/12 13:32	EFH	TAL SF
Total/NA	Prep	3050B			114421	05/29/12 15:36	ET	TAL SF
Total/NA	Analysis	6010B		4	114534	05/31/12 01:20	BA	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: FCA-SS-08 (1.0) - A

Lab Sample ID: 720-42296-6

Date Collected: 05/23/12 10:20

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114189	05/24/12 08:10	YB	TAL SF
Total/NA	Analysis	8260B		1	114171	05/24/12 12:27	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-08 A,B,C,D

Lab Sample ID: 720-42296-10

Date Collected: 05/23/12 10:15

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114268	05/25/12 09:33	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114258	05/26/12 06:10	JZ	TAL SF
Total/NA	Prep	7471A			114404	05/29/12 11:22	ET	TAL SF
Total/NA	Analysis	7471A		1	114492	05/30/12 13:34	EFH	TAL SF
Total/NA	Prep	3050B			114421	05/29/12 15:36	ET	TAL SF
Total/NA	Analysis	6010B		4	114534	05/31/12 01:29	BA	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-06 (1.0) - A

Lab Sample ID: 720-42296-11

Date Collected: 05/23/12 13:35

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114189	05/24/12 08:10	YB	TAL SF
Total/NA	Analysis	8260B		1	114171	05/24/12 12:55	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-06 A,B,C,D

Lab Sample ID: 720-42296-15

Date Collected: 05/23/12 11:00

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114268	05/25/12 09:33	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114258	05/26/12 06:34	JZ	TAL SF
Total/NA	Prep	7471A			114404	05/29/12 11:22	ET	TAL SF
Total/NA	Analysis	7471A		1	114492	05/30/12 13:42	EFH	TAL SF
Total/NA	Prep	3050B			114421	05/29/12 15:38	ET	TAL SF
Total/NA	Analysis	6010B		4	114534	05/31/12 01:33	BA	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: FCA-SS-09 (0.25) - A

Lab Sample ID: 720-42296-16

Date Collected: 05/23/12 11:10

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114189	05/24/12 08:10	YB	TAL SF
Total/NA	Analysis	8260B		1	114171	05/24/12 13:25	AC	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-09 A,B,C,D

Lab Sample ID: 720-42296-20

Date Collected: 05/23/12 11:10

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114268	05/25/12 09:33	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		10	114462	05/30/12 12:14	DH	TAL SF
Total/NA	Prep	7471A			114404	05/29/12 11:22	ET	TAL SF
Total/NA	Analysis	7471A		1	114492	05/30/12 13:44	EFH	TAL SF
Total/NA	Prep	3050B			114421	05/29/12 15:38	ET	TAL SF
Total/NA	Analysis	6010B		4	114534	05/31/12 01:38	BA	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Client Sample ID: FCA-SS-10 (0.5) - A

Lab Sample ID: 720-42296-21

Date Collected: 05/23/12 11:25

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114338	05/24/12 08:10	LL	TAL SF
Total/NA	Analysis	8260B		1	114319	05/25/12 23:01	LL	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-10 A,B,C,D

Lab Sample ID: 720-42296-25

Date Collected: 05/23/12 11:30

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 93.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114329	05/25/12 18:58	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		10	114365	05/26/12 20:27	DH	TAL SF
Total/NA	Prep	7471A			114404	05/29/12 11:22	ET	TAL SF
Total/NA	Analysis	7471A		1	114492	05/30/12 13:48	EFH	TAL SF
Total/NA	Prep	3050B			114421	05/29/12 15:38	ET	TAL SF
Total/NA	Analysis	6010B		4	114534	05/31/12 01:51	BA	TAL SF
Total/NA	Analysis	6010B		4	114569	05/31/12 13:34	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Client Sample ID: FCA-SS-11 (0.5) A

Lab Sample ID: 720-42296-26

Date Collected: 05/23/12 11:35

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114338	05/24/12 08:10	LL	TAL SF
Total/NA	Analysis	8260B		1	114319	05/25/12 23:30	LL	TAL SF
Total/NA	Analysis	Moisture		1	114473	05/30/12 11:19	MJK	TAL SF

Client Sample ID: FCA-SS-11 A,B,C,D

Lab Sample ID: 720-42296-30

Date Collected: 05/23/12 11:35

Matrix: Solid

Date Received: 05/23/12 18:15

Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114329	05/25/12 18:58	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		10	114365	05/26/12 20:51	DH	TAL SF
Total/NA	Prep	7471A			114404	05/29/12 11:22	ET	TAL SF
Total/NA	Analysis	7471A		1	114492	05/30/12 13:51	EFH	TAL SF
Total/NA	Prep	3050B			114421	05/29/12 15:38	ET	TAL SF
Total/NA	Analysis	6010B		4	114534	05/31/12 01:56	BA	TAL SF
Total/NA	Analysis	6010B		4	114569	05/31/12 13:38	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114468	05/30/12 10:13	MJK	TAL SF

Laboratory References:

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

Certification Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pleasanton	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

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- 2
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Method Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF
Moisture	Percent Moisture	EPA	TAL SF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Sample Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42296-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-42296-1	FCA-SS-05 (1.0) - A	Solid	05/23/12 09:55	05/23/12 18:15
720-42296-5	FCA-SS-05 A,B,C,D	Solid	05/23/12 09:50	05/23/12 18:15
720-42296-6	FCA-SS-08 (1.0) - A	Solid	05/23/12 10:20	05/23/12 18:15
720-42296-10	FCA-SS-08 A,B,C,D	Solid	05/23/12 10:15	05/23/12 18:15
720-42296-11	FCA-SS-06 (1.0) - A	Solid	05/23/12 13:35	05/23/12 18:15
720-42296-15	FCA-SS-06 A,B,C,D	Solid	05/23/12 11:00	05/23/12 18:15
720-42296-16	FCA-SS-09 (0.25) - A	Solid	05/23/12 11:10	05/23/12 18:15
720-42296-20	FCA-SS-09 A,B,C,D	Solid	05/23/12 11:10	05/23/12 18:15
720-42296-21	FCA-SS-10 (0.5) - A	Solid	05/23/12 11:25	05/23/12 18:15
720-42296-25	FCA-SS-10 A,B,C,D	Solid	05/23/12 11:30	05/23/12 18:15
720-42296-26	FCA-SS-11 (0.5) A	Solid	05/23/12 11:35	05/23/12 18:15
720-42296-30	FCA-SS-11 A,B,C,D	Solid	05/23/12 11:35	05/23/12 18:15





Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42296

Lab No. Test America
 Address: 100 Sansome St

138493

Project Contact (Hardcopy or PDF To):

California EDF Report? Yes No

Navy EDD Report? Yes No

Chain-of-Custody Record and Analysis Request

Laboratory: T. Angus

Electronic Deliverables To (Email Address):

Analysis Request

Test America

Sampler: tfangus@errc.com

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

Phone No.: 415-320-7150

Fax No.:

Project Number: 207-031

Phase # / Task #

Project Name: Baker rd

Project Address: Marina Headlands

Project Manager: T. Angus

Sampling

Container

Matrix

Sample Designation

Date

Time

Soil

Water

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-06(1.0)-A

5/29/12

1335

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-06(1.5)-B

1305

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-06(2.0)-C

1180

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-06(0.5)-D

1315

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-09(0.25)-A

1110

3

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-09(0.5)-B

1115

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-09(0.5)-C

1420

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-09(2.0)-D

1443

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-10(0.5)-A

1125

3

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

ECA-SS-10(1.0)-B

1130

1

X

X

CAM 17
 TPH MRO, PRO
 X TPH GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr (STD (1)wk) TAT

Number of Containers

Comments

For Lab Use Only

Relinquished by: [Signature]

Date: 5/23/12

Time: 1600

Received by: [Signature]

Remarks: Composite A, B, C, D for CAM 17 & TPH MRO, PRO. Silica gel cleanup


Relinquished by: [Signature]

Date: 5-23-12

Time: 1815

Received by: [Signature]

Bill to: Engineering / Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, CA 94553


ERRG
 Engineering / Remediation Resources Group, Inc.
 115 Sansome St, Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42296

Lab No: Test America
 Address: Resonance CH

Page 3 of 3
 138493

5/31/2012

Project Contact (Hardcopy or PDF To): T. Angus
 Laboratory: Test America
 Phone No.: 415-420-7658 Fax No.:
 Project Number: 2012-031 Phase # / Task #
 Project Name: bowler
 Project Manager: T. Angus
 Project Address: Mar in headlands
 California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address):
tkangus@anguslabs.com
C. Walker

Sample Designation	Date	Time	Soil	Water	Container	Chain-of-Custody Record and Analysis Request			
						Analysis Request	12 hr / 24 hr / 48 hr / 72 hr (STD 1 wk) TAT	Number of Containers	Comments
ECA-SS-10 (A.B.-C)	5/28/12	1415	X		802 Encores		X	23	
ECA-SS-10 (05)-D		1745	X				X	24	
ECA-SS-11 (05)-A		1135	X				X	26	
ECA-SS-11 (U.S.)-B		1320	X				X	27	
ECA-SS-11 (2.D.)-C		1400	X				X	28	
ECA-SS-11 (05)-D		1410	X				X	29	

Relinquished by: [Signature] Date: 5/23/12 Time: 1450 Received by: [Signature]
 Relinquished by: [Signature] Date: 5/28/12 Time: 1815 Received by: [Signature]

Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

Remarks:
 composite A, B, C, D for CAM 17 &
 THMED DDD - silica gel cleanup

Login Sample Receipt Checklist

Client: Engineering Remediation Resources Group.

Job Number: 720-42296-1

Login Number: 42296

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-42351-1

Client Project/Site: Bunker Rd-Marin Headlands

For:

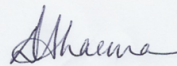
Engineering Remediation Resources Group.

115 Sansome Street

Suite 200

San Francisco, California 94104

Attn: Tiffany Angus



Authorized for release by:

6/4/2012 11:12:30 AM

Dimple Sharma

Project Manager I

dimple.sharma@testamericainc.com

LINKS

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www.testamericainc.com

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

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

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Definitions/Glossary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marin Headlands

TestAmerica Job ID: 720-42351-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Job ID: 720-42351-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-42351-1

Comments

No additional comments.

Receipt

The samples were received on 5/24/2012 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.4° C, 2.2° C and 3.6° C.

GC/MS VOA

No analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Metals

Method 6010B: The continuing calibration verification (CCV) associated with analytical batch 114630 recovered above the upper control limit for Cd. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: 720-42351-5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65

Method 6010B: The following sample was diluted due to the abundance of non-target analytes: 720-42351-a-40. Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-01(1.0)A

Lab Sample ID: 720-42351-1

No Detections

Client Sample ID: FCSO-SS-01 A,B,C,D

Lab Sample ID: 720-42351-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	190		2.5		mg/Kg	4	☼	6010B	Total/NA
Chromium	51		2.5		mg/Kg	4	☼	6010B	Total/NA
Cobalt	20		0.98		mg/Kg	4	☼	6010B	Total/NA
Copper	24		7.4		mg/Kg	4	☼	6010B	Total/NA
Lead	7.5		2.5		mg/Kg	4	☼	6010B	Total/NA
Nickel	37		2.5		mg/Kg	4	☼	6010B	Total/NA
Vanadium	63		2.5		mg/Kg	4	☼	6010B	Total/NA
Zinc	36		7.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.030		0.012		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-02(1.0)A

Lab Sample ID: 720-42351-6

No Detections

Client Sample ID: FCSO-SS-02 A,B,C,D

Lab Sample ID: 720-42351-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.4		4.8		mg/Kg	4	☼	6010B	Total/NA
Barium	210		2.4		mg/Kg	4	☼	6010B	Total/NA
Chromium	59		2.4		mg/Kg	4	☼	6010B	Total/NA
Cobalt	16		0.97		mg/Kg	4	☼	6010B	Total/NA
Copper	25		7.2		mg/Kg	4	☼	6010B	Total/NA
Lead	6.6		2.4		mg/Kg	4	☼	6010B	Total/NA
Nickel	41		2.4		mg/Kg	4	☼	6010B	Total/NA
Vanadium	64		2.4		mg/Kg	4	☼	6010B	Total/NA
Zinc	33		7.2		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.030		0.012		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-03(1.0)A

Lab Sample ID: 720-42351-11

No Detections

Client Sample ID: FCSO-SS-03 A,B,C,D

Lab Sample ID: 720-42351-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.5		4.4		mg/Kg	4	☼	6010B	Total/NA
Barium	150		2.2		mg/Kg	4	☼	6010B	Total/NA
Chromium	62		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	17		0.88		mg/Kg	4	☼	6010B	Total/NA
Copper	21		6.6		mg/Kg	4	☼	6010B	Total/NA
Lead	6.6		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	41		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	63		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	34		6.6		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.041		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-04(1.0)A

Lab Sample ID: 720-42351-16

No Detections

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-04 A,B,C,D

Lab Sample ID: 720-42351-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.3		4.4		mg/Kg	4	☼	6010B	Total/NA
Barium	170		2.2		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.52		0.44		mg/Kg	4	☼	6010B	Total/NA
Chromium	71		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	17		0.89		mg/Kg	4	☼	6010B	Total/NA
Copper	27		6.6		mg/Kg	4	☼	6010B	Total/NA
Lead	6.1		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	47		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	76		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	37		6.6		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.030		0.012		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-05(1.0)A

Lab Sample ID: 720-42351-21

No Detections

Client Sample ID: FCSO-SS-05 A,B,C,D

Lab Sample ID: 720-42351-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.5		4.5		mg/Kg	4	☼	6010B	Total/NA
Barium	160		2.3		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.56		0.45		mg/Kg	4	☼	6010B	Total/NA
Chromium	79		2.3		mg/Kg	4	☼	6010B	Total/NA
Cobalt	20		0.91		mg/Kg	4	☼	6010B	Total/NA
Copper	29		6.8		mg/Kg	4	☼	6010B	Total/NA
Lead	6.5		2.3		mg/Kg	4	☼	6010B	Total/NA
Nickel	60		2.3		mg/Kg	4	☼	6010B	Total/NA
Vanadium	77		2.3		mg/Kg	4	☼	6010B	Total/NA
Zinc	41		6.8		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.060		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-08(1.0)A

Lab Sample ID: 720-42351-26

No Detections

Client Sample ID: FCSO-SS-08 A,B,C,D

Lab Sample ID: 720-42351-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.9		4.3		mg/Kg	4	☼	6010B	Total/NA
Barium	150		2.2		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.51		0.43		mg/Kg	4	☼	6010B	Total/NA
Chromium	72		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	12		0.87		mg/Kg	4	☼	6010B	Total/NA
Copper	26		6.5		mg/Kg	4	☼	6010B	Total/NA
Lead	7.7		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	40		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	73		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	34		6.5		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.042		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-09(1.0)A

Lab Sample ID: 720-42351-31

No Detections

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-09 A,B,C,D

Lab Sample ID: 720-42351-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.8		4.2		mg/Kg	4	☼	6010B	Total/NA
Barium	170		2.1		mg/Kg	4	☼	6010B	Total/NA
Chromium	61		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	13		0.85		mg/Kg	4	☼	6010B	Total/NA
Copper	31		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	7.7		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	46		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	65		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	32		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.026		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-13(1.0)A

Lab Sample ID: 720-42351-36

No Detections

Client Sample ID: FCSO-SS-13 A,B,C,D

Lab Sample ID: 720-42351-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	11		1.2		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Barium	580		5.9		mg/Kg	10	☼	6010B	Total/NA
Chromium	43		5.9		mg/Kg	10	☼	6010B	Total/NA
Cobalt	18		2.4		mg/Kg	10	☼	6010B	Total/NA
Copper	160		18		mg/Kg	10	☼	6010B	Total/NA
Lead	16		5.9		mg/Kg	10	☼	6010B	Total/NA
Nickel	46		5.9		mg/Kg	10	☼	6010B	Total/NA
Silver	4.1		3.0		mg/Kg	10	☼	6010B	Total/NA
Vanadium	71		5.9		mg/Kg	10	☼	6010B	Total/NA
Zinc	63		18		mg/Kg	10	☼	6010B	Total/NA
Mercury	0.044		0.012		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-12(1.0)A

Lab Sample ID: 720-42351-41

No Detections

Client Sample ID: FCSO-SS-12 A,B,C,D

Lab Sample ID: 720-42351-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	160		2.4		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.51		0.48		mg/Kg	4	☼	6010B	Total/NA
Chromium	64		2.4		mg/Kg	4	☼	6010B	Total/NA
Cobalt	32		0.96		mg/Kg	4	☼	6010B	Total/NA
Copper	20		7.2		mg/Kg	4	☼	6010B	Total/NA
Lead	7.8		2.4		mg/Kg	4	☼	6010B	Total/NA
Nickel	38		2.4		mg/Kg	4	☼	6010B	Total/NA
Vanadium	70		2.4		mg/Kg	4	☼	6010B	Total/NA
Zinc	28		7.2		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.055		0.012		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-10(1.0)A

Lab Sample ID: 720-42351-46

No Detections

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-10 A,B,C,D

Lab Sample ID: 720-42351-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.7		4.6		mg/Kg	4	☼	6010B	Total/NA
Barium	190		2.3		mg/Kg	4	☼	6010B	Total/NA
Chromium	87		2.3		mg/Kg	4	☼	6010B	Total/NA
Cobalt	11		0.92		mg/Kg	4	☼	6010B	Total/NA
Copper	26		6.9		mg/Kg	4	☼	6010B	Total/NA
Lead	5.9		2.3		mg/Kg	4	☼	6010B	Total/NA
Nickel	62		2.3		mg/Kg	4	☼	6010B	Total/NA
Vanadium	74		2.3		mg/Kg	4	☼	6010B	Total/NA
Zinc	38		6.9		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.058		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-11(1.0)A

Lab Sample ID: 720-42351-51

No Detections

Client Sample ID: FCSO-SS-11 A,B,C,D

Lab Sample ID: 720-42351-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.1		4.3		mg/Kg	4	☼	6010B	Total/NA
Barium	240		2.1		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.45		0.43		mg/Kg	4	☼	6010B	Total/NA
Chromium	61		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	15		0.85		mg/Kg	4	☼	6010B	Total/NA
Copper	28		6.4		mg/Kg	4	☼	6010B	Total/NA
Lead	6.4		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	47		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	70		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	38		6.4		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.025		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-06(1.0)A

Lab Sample ID: 720-42351-56

No Detections

Client Sample ID: FCSO-SS-06 A,B,C,D

Lab Sample ID: 720-42351-60

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.5		4.2		mg/Kg	4	☼	6010B	Total/NA
Barium	160		2.1		mg/Kg	4	☼	6010B	Total/NA
Beryllium	0.47		0.42		mg/Kg	4	☼	6010B	Total/NA
Chromium	63		2.1		mg/Kg	4	☼	6010B	Total/NA
Cobalt	17		0.83		mg/Kg	4	☼	6010B	Total/NA
Copper	39		6.3		mg/Kg	4	☼	6010B	Total/NA
Lead	8.1		2.1		mg/Kg	4	☼	6010B	Total/NA
Nickel	37		2.1		mg/Kg	4	☼	6010B	Total/NA
Vanadium	67		2.1		mg/Kg	4	☼	6010B	Total/NA
Zinc	33		6.3		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.043		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: FCSO-SS-14(0.5)A

Lab Sample ID: 720-42351-61

No Detections

Detection Summary

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-14 A,B,C,D

Lab Sample ID: 720-42351-65

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.2		1.0		mg/Kg	1		✱	8015B	Silica Gel Cleanup
Barium	270		1.9		mg/Kg	4		✱	6010B	Total/NA
Chromium	18		1.9		mg/Kg	4		✱	6010B	Total/NA
Cobalt	11		0.76		mg/Kg	4		✱	6010B	Total/NA
Copper	57		5.7		mg/Kg	4		✱	6010B	Total/NA
Lead	19		1.9		mg/Kg	4		✱	6010B	Total/NA
Nickel	20		1.9		mg/Kg	4		✱	6010B	Total/NA
Vanadium	35		1.9		mg/Kg	4		✱	6010B	Total/NA
Zinc	21		5.7		mg/Kg	4		✱	6010B	Total/NA
Mercury	0.021		0.0099		mg/Kg	1		✱	7471A	Total/NA



Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-01(1.0)A

Lab Sample ID: 720-42351-1

Date Collected: 05/24/12 09:05

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 82.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.6		ug/Kg	☼	05/25/12 10:20	05/25/12 11:44	1
Ethylbenzene	ND		5.6		ug/Kg	☼	05/25/12 10:20	05/25/12 11:44	1
Toluene	ND		5.6		ug/Kg	☼	05/25/12 10:20	05/25/12 11:44	1
Xylenes, Total	ND		11		ug/Kg	☼	05/25/12 10:20	05/25/12 11:44	1
Gasoline Range Organics (GRO) -C5-C12	ND		280		ug/Kg	☼	05/25/12 10:20	05/25/12 11:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	75		45 - 131	05/25/12 10:20	05/25/12 11:44	1
1,2-Dichloroethane-d4 (Surr)	116		60 - 140	05/25/12 10:20	05/25/12 11:44	1
Toluene-d8 (Surr)	93		58 - 140	05/25/12 10:20	05/25/12 11:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-01 A,B,C,D

Lab Sample ID: 720-42351-5

Date Collected: 05/24/12 09:00

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/29/12 22:51	05/31/12 01:17	1
Motor Oil Range Organics [C24-C36]	ND		61		mg/Kg	☼	05/29/12 22:51	05/31/12 01:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 01:17	1
p-Terphenyl	94		38 - 148				05/29/12 22:51	05/31/12 01:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Arsenic	ND		4.9		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Barium	190		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Beryllium	ND		0.49		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Cadmium	ND	^	0.61		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Chromium	51		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Cobalt	20		0.98		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Copper	24		7.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Lead	7.5		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Molybdenum	ND		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Nickel	37		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Selenium	ND		4.9		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Silver	ND		1.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Thallium	ND		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Vanadium	63		2.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4
Zinc	36		7.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:08	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.012		mg/Kg	☼	05/30/12 11:36	05/31/12 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-02(1.0)A

Lab Sample ID: 720-42351-6

Date Collected: 05/24/12 09:58

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 89.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.7		ug/Kg	☼	05/25/12 10:20	05/25/12 12:12	1
Ethylbenzene	ND		4.7		ug/Kg	☼	05/25/12 10:20	05/25/12 12:12	1
Toluene	ND		4.7		ug/Kg	☼	05/25/12 10:20	05/25/12 12:12	1
Xylenes, Total	ND		9.4		ug/Kg	☼	05/25/12 10:20	05/25/12 12:12	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg	☼	05/25/12 10:20	05/25/12 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		45 - 131	05/25/12 10:20	05/25/12 12:12	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/25/12 10:20	05/25/12 12:12	1
Toluene-d8 (Surr)	98		58 - 140	05/25/12 10:20	05/25/12 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-02 A,B,C,D

Lab Sample ID: 720-42351-10

Date Collected: 05/24/12 09:50

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/29/12 22:51	05/31/12 01:41	1
Motor Oil Range Organics [C24-C36]	ND		62		mg/Kg	☼	05/29/12 22:51	05/31/12 01:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 01:41	1
p-Terphenyl	88		38 - 148				05/29/12 22:51	05/31/12 01:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Arsenic	5.4		4.8		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Barium	210		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Beryllium	ND		0.48		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Cadmium	ND	^	0.60		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Chromium	59		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Cobalt	16		0.97		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Copper	25		7.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Lead	6.6		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Molybdenum	ND		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Nickel	41		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Selenium	ND		4.8		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Silver	ND		1.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Thallium	ND		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Vanadium	64		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4
Zinc	33		7.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:12	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.012		mg/Kg	☼	05/30/12 11:36	05/31/12 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-03(1.0)A

Lab Sample ID: 720-42351-11

Date Collected: 05/24/12 10:48

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 88.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 12:41	1
Ethylbenzene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 12:41	1
Toluene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 12:41	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 12:41	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/25/12 10:20	05/25/12 12:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		45 - 131	05/25/12 10:20	05/25/12 12:41	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140	05/25/12 10:20	05/25/12 12:41	1
Toluene-d8 (Surr)	95		58 - 140	05/25/12 10:20	05/25/12 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-03 A,B,C,D

Lab Sample ID: 720-42351-15

Date Collected: 05/24/12 10:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/29/12 22:51	05/31/12 02:06	1
Motor Oil Range Organics [C24-C36]	ND		57		mg/Kg	☼	05/29/12 22:51	05/31/12 02:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 02:06	1
p-Terphenyl	78		38 - 148				05/29/12 22:51	05/31/12 02:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Arsenic	5.5		4.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Barium	150		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Beryllium	ND		0.44		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Cadmium	ND ^		0.55		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Chromium	62		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Cobalt	17		0.88		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Copper	21		6.6		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Lead	6.6		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Molybdenum	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Nickel	41		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Selenium	ND		4.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Silver	ND		1.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Thallium	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Vanadium	63		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4
Zinc	34		6.6		mg/Kg	☼	05/31/12 10:58	06/01/12 02:17	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041		0.011		mg/Kg	☼	05/30/12 11:36	05/31/12 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-04(1.0)A

Lab Sample ID: 720-42351-16

Date Collected: 05/24/12 10:53

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 13:10	1
Ethylbenzene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 13:10	1
Toluene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 13:10	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 13:10	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/25/12 10:20	05/25/12 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		45 - 131	05/25/12 10:20	05/25/12 13:10	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/25/12 10:20	05/25/12 13:10	1
Toluene-d8 (Surr)	93		58 - 140	05/25/12 10:20	05/25/12 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10		%			05/30/12 21:02	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-04 A,B,C,D

Lab Sample ID: 720-42351-20

Date Collected: 05/24/12 10:53

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/29/12 22:51	05/31/12 02:30	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	05/29/12 22:51	05/31/12 02:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 02:30	1
p-Terphenyl	91		38 - 148				05/29/12 22:51	05/31/12 02:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Arsenic	5.3		4.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Barium	170		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Beryllium	0.52		0.44		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Cadmium	ND [^]		0.55		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Chromium	71		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Cobalt	17		0.89		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Copper	27		6.6		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Lead	6.1		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Molybdenum	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Nickel	47		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Selenium	ND		4.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Silver	ND		1.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Thallium	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Vanadium	76		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4
Zinc	37		6.6		mg/Kg	☼	05/31/12 10:58	06/01/12 02:21	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.012		mg/Kg	☼	05/30/12 11:36	05/31/12 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-05(1.0)A

Lab Sample ID: 720-42351-21

Date Collected: 05/24/12 11:20

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 13:39	1
Ethylbenzene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 13:39	1
Toluene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 13:39	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 13:39	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/25/12 10:20	05/25/12 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		45 - 131	05/25/12 10:20	05/25/12 13:39	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/25/12 10:20	05/25/12 13:39	1
Toluene-d8 (Surr)	96		58 - 140	05/25/12 10:20	05/25/12 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-05 A,B,C,D

Lab Sample ID: 720-42351-25

Date Collected: 05/24/12 11:22

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 86.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/29/12 22:51	05/31/12 02:54	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	05/29/12 22:51	05/31/12 02:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 02:54	1
p-Terphenyl	94		38 - 148				05/29/12 22:51	05/31/12 02:54	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Arsenic	6.5		4.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Barium	160		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Beryllium	0.56		0.45		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Cadmium	ND	^	0.57		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Chromium	79		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Cobalt	20		0.91		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Copper	29		6.8		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Lead	6.5		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Molybdenum	ND		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Nickel	60		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Selenium	ND		4.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Silver	ND		1.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Thallium	ND		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Vanadium	77		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4
Zinc	41		6.8		mg/Kg	☼	05/31/12 10:58	06/01/12 02:26	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.011		mg/Kg	☼	05/30/12 11:36	05/31/12 15:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-08(1.0)A

Lab Sample ID: 720-42351-26

Date Collected: 05/24/12 12:50

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 88.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.2		ug/Kg	☼	05/25/12 10:20	05/25/12 14:08	1
Ethylbenzene	ND		4.2		ug/Kg	☼	05/25/12 10:20	05/25/12 14:08	1
Toluene	ND		4.2		ug/Kg	☼	05/25/12 10:20	05/25/12 14:08	1
Xylenes, Total	ND		8.4		ug/Kg	☼	05/25/12 10:20	05/25/12 14:08	1
Gasoline Range Organics (GRO) -C5-C12	ND		210		ug/Kg	☼	05/25/12 10:20	05/25/12 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		45 - 131	05/25/12 10:20	05/25/12 14:08	1
1,2-Dichloroethane-d4 (Surr)	113		60 - 140	05/25/12 10:20	05/25/12 14:08	1
Toluene-d8 (Surr)	97		58 - 140	05/25/12 10:20	05/25/12 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-08 A,B,C,D

Lab Sample ID: 720-42351-30

Date Collected: 05/24/12 12:40

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/29/12 22:51	05/31/12 03:18	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	☼	05/29/12 22:51	05/31/12 03:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 03:18	1
p-Terphenyl	89		38 - 148				05/29/12 22:51	05/31/12 03:18	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Arsenic	5.9		4.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Barium	150		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Beryllium	0.51		0.43		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Cadmium	ND [^]		0.54		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Chromium	72		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Cobalt	12		0.87		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Copper	26		6.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Lead	7.7		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Molybdenum	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Nickel	40		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Selenium	ND		4.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Silver	ND		1.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Thallium	ND		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Vanadium	73		2.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4
Zinc	34		6.5		mg/Kg	☼	05/31/12 10:58	06/01/12 02:30	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042		0.011		mg/Kg	☼	05/30/12 11:36	05/31/12 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-09(1.0)A

Lab Sample ID: 720-42351-31

Date Collected: 05/24/12 13:06

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 84.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.1		ug/Kg	☼	05/25/12 10:20	05/25/12 14:37	1
Ethylbenzene	ND		5.1		ug/Kg	☼	05/25/12 10:20	05/25/12 14:37	1
Toluene	ND		5.1		ug/Kg	☼	05/25/12 10:20	05/25/12 14:37	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 14:37	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/25/12 10:20	05/25/12 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		45 - 131	05/25/12 10:20	05/25/12 14:37	1
1,2-Dichloroethane-d4 (Surr)	116		60 - 140	05/25/12 10:20	05/25/12 14:37	1
Toluene-d8 (Surr)	97		58 - 140	05/25/12 10:20	05/25/12 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-09 A,B,C,D

Lab Sample ID: 720-42351-35

Date Collected: 05/24/12 13:06

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/29/12 22:51	05/31/12 03:43	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	05/29/12 22:51	05/31/12 03:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/29/12 22:51	05/31/12 03:43	1
p-Terphenyl	78		38 - 148				05/29/12 22:51	05/31/12 03:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Arsenic	4.8		4.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Barium	170		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Beryllium	ND		0.42		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Cadmium	ND	^	0.53		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Chromium	61		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Cobalt	13		0.85		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Copper	31		6.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Lead	7.7		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Molybdenum	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Nickel	46		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Selenium	ND		4.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Silver	ND		1.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Thallium	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Vanadium	65		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4
Zinc	32		6.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:35	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.011		mg/Kg	☼	05/30/12 11:36	05/31/12 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-13(1.0)A

Lab Sample ID: 720-42351-36

Date Collected: 05/24/12 16:24

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 76.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/Kg	☼	05/25/12 10:20	05/25/12 15:06	1
Ethylbenzene	ND		6.4		ug/Kg	☼	05/25/12 10:20	05/25/12 15:06	1
Toluene	ND		6.4		ug/Kg	☼	05/25/12 10:20	05/25/12 15:06	1
Xylenes, Total	ND		13		ug/Kg	☼	05/25/12 10:20	05/25/12 15:06	1
Gasoline Range Organics (GRO) -C5-C12	ND		320		ug/Kg	☼	05/25/12 10:20	05/25/12 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		45 - 131	05/25/12 10:20	05/25/12 15:06	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140	05/25/12 10:20	05/25/12 15:06	1
Toluene-d8 (Surr)	97		58 - 140	05/25/12 10:20	05/25/12 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-13 A,B,C,D

Lab Sample ID: 720-42351-40

Date Collected: 05/24/12 16:00

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	11		1.2		mg/Kg	☼	05/29/12 22:51	06/01/12 12:59	1
Motor Oil Range Organics [C24-C36]	ND		62		mg/Kg	☼	05/29/12 22:51	06/01/12 12:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.004		0 - 1				05/29/12 22:51	06/01/12 12:59	1
p-Terphenyl	71		38 - 148				05/29/12 22:51	06/01/12 12:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Arsenic	ND		12		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Barium	580		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Beryllium	ND		1.2		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Cadmium	ND		1.5		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Chromium	43		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Cobalt	18		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Copper	160		18		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Lead	16		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Molybdenum	ND		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Nickel	46		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Selenium	ND		12		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Silver	4.1		3.0		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Thallium	ND		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Vanadium	71		5.9		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10
Zinc	63		18		mg/Kg	☼	05/31/12 10:58	06/01/12 16:51	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.012		mg/Kg	☼	05/30/12 11:36	05/31/12 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-12(1.0)A

Lab Sample ID: 720-42351-41

Date Collected: 05/24/12 15:10

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 81.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 15:35	1
Ethylbenzene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 15:35	1
Toluene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 15:35	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 15:35	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/25/12 10:20	05/25/12 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		45 - 131	05/25/12 10:20	05/25/12 15:35	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/25/12 10:20	05/25/12 15:35	1
Toluene-d8 (Surr)	100		58 - 140	05/25/12 10:20	05/25/12 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-12 A,B,C,D

Lab Sample ID: 720-42351-45

Date Collected: 05/24/12 14:55

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/30/12 09:25	05/31/12 01:39	1
Motor Oil Range Organics [C24-C36]	ND		60		mg/Kg	☼	05/30/12 09:25	05/31/12 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 1				05/30/12 09:25	05/31/12 01:39	1
p-Terphenyl	95		38 - 148				05/30/12 09:25	05/31/12 01:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Arsenic	ND		4.8		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Barium	160		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Beryllium	0.51		0.48		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Cadmium	ND	^	0.60		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Chromium	64		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Cobalt	32		0.96		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Copper	20		7.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Lead	7.8		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Molybdenum	ND		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Nickel	38		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Selenium	ND		4.8		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Silver	ND		1.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Thallium	ND		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Vanadium	70		2.4		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4
Zinc	28		7.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:44	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.055		0.012		mg/Kg	☼	05/30/12 11:36	05/31/12 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-10(1.0)A

Lab Sample ID: 720-42351-46

Date Collected: 05/24/12 13:40

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 86.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 16:03	1
Ethylbenzene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 16:03	1
Toluene	ND		5.2		ug/Kg	☼	05/25/12 10:20	05/25/12 16:03	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 16:03	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/25/12 10:20	05/25/12 16:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	76		45 - 131	05/25/12 10:20	05/25/12 16:03	1
1,2-Dichloroethane-d4 (Surr)	119		60 - 140	05/25/12 10:20	05/25/12 16:03	1
Toluene-d8 (Surr)	93		58 - 140	05/25/12 10:20	05/25/12 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-10 A,B,C,D

Lab Sample ID: 720-42351-50

Date Collected: 05/24/12 13:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 83.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/30/12 09:25	05/31/12 02:03	1
Motor Oil Range Organics [C24-C36]	ND		59		mg/Kg	☼	05/30/12 09:25	05/31/12 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1				05/30/12 09:25	05/31/12 02:03	1
p-Terphenyl	94		38 - 148				05/30/12 09:25	05/31/12 02:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Arsenic	5.7		4.6		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Barium	190		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Beryllium	ND		0.46		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Cadmium	ND ^		0.58		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Chromium	87		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Cobalt	11		0.92		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Copper	26		6.9		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Lead	5.9		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Molybdenum	ND		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Nickel	62		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Selenium	ND		4.6		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Silver	ND		1.2		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Thallium	ND		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Vanadium	74		2.3		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4
Zinc	38		6.9		mg/Kg	☼	05/31/12 10:58	06/01/12 02:48	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.058		0.011		mg/Kg	☼	05/30/12 15:55	05/31/12 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-11(1.0)A

Lab Sample ID: 720-42351-51

Date Collected: 05/24/12 14:43

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 16:32	1
Ethylbenzene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 16:32	1
Toluene	ND		5.0		ug/Kg	☼	05/25/12 10:20	05/25/12 16:32	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 16:32	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg	☼	05/25/12 10:20	05/25/12 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	73		45 - 131	05/25/12 10:20	05/25/12 16:32	1
1,2-Dichloroethane-d4 (Surr)	117		60 - 140	05/25/12 10:20	05/25/12 16:32	1
Toluene-d8 (Surr)	93		58 - 140	05/25/12 10:20	05/25/12 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-11 A,B,C,D

Lab Sample ID: 720-42351-55

Date Collected: 05/24/12 14:21

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.2		mg/Kg	☼	05/30/12 09:25	05/31/12 02:26	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	05/30/12 09:25	05/31/12 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 1				05/30/12 09:25	05/31/12 02:26	1
p-Terphenyl	84		38 - 148				05/30/12 09:25	05/31/12 02:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Arsenic	5.1		4.3		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Barium	240		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Beryllium	0.45		0.43		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Cadmium	ND [^]		0.53		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Chromium	61		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Cobalt	15		0.85		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Copper	28		6.4		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Lead	6.4		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Molybdenum	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Nickel	47		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Selenium	ND		4.3		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Silver	ND		1.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Thallium	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Vanadium	70		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4
Zinc	38		6.4		mg/Kg	☼	05/31/12 10:58	06/01/12 03:01	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.011		mg/Kg	☼	05/30/12 15:55	05/31/12 16:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-06(1.0)A

Lab Sample ID: 720-42351-56

Date Collected: 05/24/12 12:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 89.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.1		ug/Kg	☼	05/25/12 10:20	05/25/12 17:01	1
Ethylbenzene	ND		5.1		ug/Kg	☼	05/25/12 10:20	05/25/12 17:01	1
Toluene	ND		5.1		ug/Kg	☼	05/25/12 10:20	05/25/12 17:01	1
Xylenes, Total	ND		10		ug/Kg	☼	05/25/12 10:20	05/25/12 17:01	1
Gasoline Range Organics (GRO) -C5-C12	ND		260		ug/Kg	☼	05/25/12 10:20	05/25/12 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		45 - 131	05/25/12 10:20	05/25/12 17:01	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140	05/25/12 10:20	05/25/12 17:01	1
Toluene-d8 (Surr)	96		58 - 140	05/25/12 10:20	05/25/12 17:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-06 A,B,C,D

Lab Sample ID: 720-42351-60

Date Collected: 05/24/12 12:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.1		mg/Kg	☼	05/30/12 09:25	05/31/12 02:50	1
Motor Oil Range Organics [C24-C36]	ND		55		mg/Kg	☼	05/30/12 09:25	05/31/12 02:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.09		0 - 1				05/30/12 09:25	05/31/12 02:50	1
p-Terphenyl	94		38 - 148				05/30/12 09:25	05/31/12 02:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Arsenic	5.5		4.2		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Barium	160		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Beryllium	0.47		0.42		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Cadmium	ND [^]		0.52		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Chromium	63		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Cobalt	17		0.83		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Copper	39		6.3		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Lead	8.1		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Molybdenum	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Nickel	37		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Selenium	ND		4.2		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Silver	ND		1.0		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Thallium	ND		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Vanadium	67		2.1		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4
Zinc	33		6.3		mg/Kg	☼	05/31/12 10:58	06/01/12 03:06	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.011		mg/Kg	☼	05/30/12 15:55	05/31/12 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-14(0.5)A

Lab Sample ID: 720-42351-61

Date Collected: 05/24/12 14:28

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 94.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.6		ug/Kg	☼	05/25/12 10:20	05/25/12 17:30	1
Ethylbenzene	ND		5.6		ug/Kg	☼	05/25/12 10:20	05/25/12 17:30	1
Toluene	ND		5.6		ug/Kg	☼	05/25/12 10:20	05/25/12 17:30	1
Xylenes, Total	ND		11		ug/Kg	☼	05/25/12 10:20	05/25/12 17:30	1
Gasoline Range Organics (GRO) -C5-C12	ND		280		ug/Kg	☼	05/25/12 10:20	05/25/12 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		45 - 131	05/25/12 10:20	05/25/12 17:30	1
1,2-Dichloroethane-d4 (Surr)	115		60 - 140	05/25/12 10:20	05/25/12 17:30	1
Toluene-d8 (Surr)	96		58 - 140	05/25/12 10:20	05/25/12 17:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.6		0.10		%			05/31/12 09:39	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-14 A,B,C,D

Lab Sample ID: 720-42351-65

Date Collected: 05/24/12 14:28

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 96.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.2		1.0		mg/Kg	☼	05/30/12 09:25	05/31/12 03:13	1
Motor Oil Range Organics [C24-C36]	ND		52		mg/Kg	☼	05/30/12 09:25	05/31/12 03:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.007		0 - 1				05/30/12 09:25	05/31/12 03:13	1
p-Terphenyl	101		38 - 148				05/30/12 09:25	05/31/12 03:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Arsenic	ND		3.8		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Barium	270		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Beryllium	ND		0.38		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Cadmium	ND ^		0.48		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Chromium	18		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Cobalt	11		0.76		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Copper	57		5.7		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Lead	19		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Molybdenum	ND		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Nickel	20		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Selenium	ND		3.8		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Silver	ND		0.95		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Thallium	ND		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Vanadium	35		1.9		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4
Zinc	21		5.7		mg/Kg	☼	05/31/12 10:58	06/01/12 03:10	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.0099		mg/Kg	☼	05/30/12 15:55	05/31/12 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.6		0.10		%			05/31/12 09:39	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-114287/1-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Ethylbenzene	ND		5.0		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Toluene	ND		5.0		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Xylenes, Total	ND		10		ug/Kg		05/25/12 07:00	05/25/12 08:51	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		05/25/12 07:00	05/25/12 08:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		45 - 131	05/25/12 07:00	05/25/12 08:51	1
1,2-Dichloroethane-d4 (Surr)	111		60 - 140	05/25/12 07:00	05/25/12 08:51	1
Toluene-d8 (Surr)	99		58 - 140	05/25/12 07:00	05/25/12 08:51	1

Lab Sample ID: LCS 720-114287/2-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.2		ug/Kg		98	70 - 130
Ethylbenzene	50.0	48.2		ug/Kg		96	80 - 137
Toluene	50.0	48.4		ug/Kg		97	80 - 128
m-Xylene & p-Xylene	100	107		ug/Kg		107	70 - 146
o-Xylene	50.0	52.0		ug/Kg		104	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		45 - 131
1,2-Dichloroethane-d4 (Surr)	108		60 - 140
Toluene-d8 (Surr)	100		58 - 140

Lab Sample ID: LCS 720-114287/4-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	891		ug/Kg		89	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		45 - 131
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	101		58 - 140

Lab Sample ID: LCSD 720-114287/3-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	48.8		ug/Kg		98	70 - 130	1	20
Ethylbenzene	50.0	47.2		ug/Kg		94	80 - 137	2	20
Toluene	50.0	47.8		ug/Kg		96	80 - 128	1	20

QC Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-114287/3-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	100	105		ug/Kg		105	70 - 146	1	20
o-Xylene	50.0	51.4		ug/Kg		103	70 - 140	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		45 - 131
1,2-Dichloroethane-d4 (Surr)	103		60 - 140
Toluene-d8 (Surr)	100		58 - 140

Lab Sample ID: LCSD 720-114287/5-A

Matrix: Solid

Analysis Batch: 114263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114287

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	894		ug/Kg		89	61 - 128	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	105		60 - 140
Toluene-d8 (Surr)	99		58 - 140

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

Lab Sample ID: MB 720-114446/1-A

Matrix: Solid

Analysis Batch: 114463

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		05/29/12 22:51	05/31/12 04:56	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/29/12 22:51	05/31/12 04:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	05/29/12 22:51	05/31/12 04:56	1
p-Terphenyl	120		38 - 148	05/29/12 22:51	05/31/12 04:56	1

Lab Sample ID: LCS 720-114446/2-A

Matrix: Solid

Analysis Batch: 114463

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.6	82.4		mg/Kg		100	36 - 112

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	111		38 - 148

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

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

Lab Sample ID: LCSD 720-114446/3-A

Matrix: Solid

Analysis Batch: 114463

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 114446

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	82.2	73.7		mg/Kg		90	36 - 112	11	35
Surrogate	%Recovery	LCSD Qualifier	Limits						
<i>p-Terphenyl</i>	91		38 - 148						

Lab Sample ID: 720-42351-5 MS

Matrix: Solid

Analysis Batch: 114463

Client Sample ID: FCSO-SS-01 A,B,C,D

Prep Type: Silica Gel Cleanup

Prep Batch: 114446

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	ND		102	89.1		mg/Kg	☼	87	50 - 150		
Surrogate	%Recovery	MS Qualifier	Limits								
<i>p-Terphenyl</i>	98		38 - 148								

Lab Sample ID: 720-42351-5 MSD

Matrix: Solid

Analysis Batch: 114463

Client Sample ID: FCSO-SS-01 A,B,C,D

Prep Type: Silica Gel Cleanup

Prep Batch: 114446

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	ND		101	76.1		mg/Kg	☼	75	50 - 150	16	35
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>p-Terphenyl</i>	96		38 - 148								

Lab Sample ID: MB 720-114467/1-A

Matrix: Solid

Analysis Batch: 114460

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 114467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		05/30/12 09:25	05/31/12 04:00	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		05/30/12 09:25	05/31/12 04:00	1
Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>Capric Acid (Surr)</i>	0.1		0 - 1	05/30/12 09:25	05/31/12 04:00	1			
<i>p-Terphenyl</i>	97		38 - 148	05/30/12 09:25	05/31/12 04:00	1			

Lab Sample ID: LCS 720-114467/2-A

Matrix: Solid

Analysis Batch: 114460

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 114467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	83.0	68.0		mg/Kg		82	36 - 112		

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

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

Lab Sample ID: LCS 720-114467/2-A
Matrix: Solid
Analysis Batch: 114460

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 114467

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	110		38 - 148

Lab Sample ID: LCSD 720-114467/3-A
Matrix: Solid
Analysis Batch: 114460

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 114467

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	83.2	68.7		mg/Kg		83	36 - 112	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	114		38 - 148

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-114549/1-A
Matrix: Solid
Analysis Batch: 114630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114549

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Arsenic	ND		1.0		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Barium	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Beryllium	ND		0.10		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Cadmium	ND		0.13		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Chromium	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Cobalt	ND		0.20		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Copper	ND		1.5		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Lead	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Molybdenum	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Nickel	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Selenium	ND		1.0		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Silver	ND		0.25		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Thallium	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Vanadium	ND		0.50		mg/Kg		05/31/12 10:58	06/01/12 01:28	1
Zinc	ND		1.5		mg/Kg		05/31/12 10:58	06/01/12 01:28	1

Lab Sample ID: LCS 720-114549/2-A
Matrix: Solid
Analysis Batch: 114630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114549

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	50.3		mg/Kg		101	80 - 120
Arsenic	50.0	50.0		mg/Kg		100	80 - 120
Barium	50.0	52.0		mg/Kg		104	80 - 120
Beryllium	50.0	50.1		mg/Kg		100	80 - 120
Cadmium	50.0	52.6		mg/Kg		105	80 - 120
Chromium	50.0	49.6		mg/Kg		99	80 - 120
Cobalt	50.0	52.2		mg/Kg		104	80 - 120

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

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

Lab Sample ID: LCS 720-114549/2-A

Matrix: Solid

Analysis Batch: 114630

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114549

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	50.0	50.4		mg/Kg		101	80 - 120
Lead	50.0	51.0		mg/Kg		102	80 - 120
Molybdenum	50.0	50.5		mg/Kg		101	80 - 120
Nickel	50.0	49.7		mg/Kg		99	80 - 120
Selenium	50.0	47.9		mg/Kg		96	80 - 120
Silver	25.0	25.6		mg/Kg		102	80 - 120
Thallium	50.0	50.5		mg/Kg		101	80 - 120
Vanadium	50.0	51.2		mg/Kg		102	80 - 120
Zinc	50.0	52.1		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 720-114549/3-A

Matrix: Solid

Analysis Batch: 114630

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114549

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	50.0	50.0		mg/Kg		100	80 - 120	1	20
Arsenic	50.0	49.2		mg/Kg		98	80 - 120	1	20
Barium	50.0	51.7		mg/Kg		103	80 - 120	1	20
Beryllium	50.0	48.8		mg/Kg		98	80 - 120	3	20
Cadmium	50.0	52.2		mg/Kg		104	80 - 120	1	20
Chromium	50.0	48.0		mg/Kg		96	80 - 120	3	20
Cobalt	50.0	51.4		mg/Kg		103	80 - 120	2	20
Copper	50.0	48.7		mg/Kg		97	80 - 120	3	20
Lead	50.0	50.1		mg/Kg		100	80 - 120	2	20
Molybdenum	50.0	49.7		mg/Kg		99	80 - 120	2	20
Nickel	50.0	48.7		mg/Kg		97	80 - 120	2	20
Selenium	50.0	47.2		mg/Kg		94	80 - 120	1	20
Silver	25.0	25.8		mg/Kg		103	80 - 120	1	20
Thallium	50.0	49.5		mg/Kg		99	80 - 120	2	20
Vanadium	50.0	50.2		mg/Kg		100	80 - 120	2	20
Zinc	50.0	50.9		mg/Kg		102	80 - 120	2	20

Lab Sample ID: LCSSRM 720-114549/25-A

Matrix: Solid

Analysis Batch: 114630

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114549

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	51.4	25.4		mg/Kg		50	11 - 101
Arsenic	136	121		mg/Kg		89	69 - 119
Barium	549	527		mg/Kg		96	61 - 117
Beryllium	251	228		mg/Kg		91	56 - 102
Cadmium	87.9	87.6		mg/Kg		100	67 - 118
Chromium	135	116		mg/Kg		86	67 - 121
Cobalt	218	211		mg/Kg		97	64 - 133
Copper	134	120		mg/Kg		89	68 - 126
Lead	340	305		mg/Kg		90	62 - 113
Molybdenum	51.5	45.9		mg/Kg		89	62 - 128
Nickel	288	255		mg/Kg		88	65 - 117
Selenium	203	174		mg/Kg		86	63 - 126
Silver	47.0	47.9		mg/Kg		102	51 - 130

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

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

Lab Sample ID: LCSSRM 720-114549/25-A
Matrix: Solid
Analysis Batch: 114630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114549

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	44.7	38.5		mg/Kg		86	64 - 124
Vanadium	148	134		mg/Kg		90	67 - 123
Zinc	433	422		mg/Kg		97	62 - 110

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-114475/1-A
Matrix: Solid
Analysis Batch: 114575

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/30/12 11:35	05/31/12 14:16	1

Lab Sample ID: LCS 720-114475/2-A
Matrix: Solid
Analysis Batch: 114575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114475

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.867		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 720-114475/3-A
Matrix: Solid
Analysis Batch: 114575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114475

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.900		mg/Kg		108	80 - 120	4	20

Lab Sample ID: MB 720-114498/1-A
Matrix: Solid
Analysis Batch: 114585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114498

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/30/12 15:55	05/31/12 15:42	1

Lab Sample ID: LCS 720-114498/2-A
Matrix: Solid
Analysis Batch: 114585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.867		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 720-114498/3-A
Matrix: Solid
Analysis Batch: 114585

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114498

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.867		mg/Kg		104	80 - 120	0	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Method: Moisture - Percent Moisture

Lab Sample ID: 720-42351-20 DU

Matrix: Solid

Analysis Batch: 114540

Client Sample ID: FCSO-SS-04 A,B,C,D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	15		15		%		3	20

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

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

GC/MS VOA

Analysis Batch: 114263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-1	FCSO-SS-01(1.0)A	Total/NA	Solid	8260B	114287
720-42351-6	FCSO-SS-02(1.0)A	Total/NA	Solid	8260B	114287
720-42351-11	FCSO-SS-03(1.0)A	Total/NA	Solid	8260B	114287
720-42351-16	FCSO-SS-04(1.0)A	Total/NA	Solid	8260B	114287
720-42351-21	FCSO-SS-05(1.0)A	Total/NA	Solid	8260B	114287
720-42351-26	FCSO-SS-08(1.0)A	Total/NA	Solid	8260B	114287
720-42351-31	FCSO-SS-09(1.0)A	Total/NA	Solid	8260B	114287
720-42351-36	FCSO-SS-13(1.0)A	Total/NA	Solid	8260B	114287
720-42351-41	FCSO-SS-12(1.0)A	Total/NA	Solid	8260B	114287
720-42351-46	FCSO-SS-10(1.0)A	Total/NA	Solid	8260B	114287
720-42351-51	FCSO-SS-11(1.0)A	Total/NA	Solid	8260B	114287
720-42351-56	FCSO-SS-06(1.0)A	Total/NA	Solid	8260B	114287
720-42351-61	FCSO-SS-14(0.5)A	Total/NA	Solid	8260B	114287
LCS 720-114287/2-A	Lab Control Sample	Total/NA	Solid	8260B	114287
LCS 720-114287/4-A	Lab Control Sample	Total/NA	Solid	8260B	114287
LCSD 720-114287/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114287
LCSD 720-114287/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114287
MB 720-114287/1-A	Method Blank	Total/NA	Solid	8260B	114287

Prep Batch: 114287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-1	FCSO-SS-01(1.0)A	Total/NA	Solid	5035	
720-42351-6	FCSO-SS-02(1.0)A	Total/NA	Solid	5035	
720-42351-11	FCSO-SS-03(1.0)A	Total/NA	Solid	5035	
720-42351-16	FCSO-SS-04(1.0)A	Total/NA	Solid	5035	
720-42351-21	FCSO-SS-05(1.0)A	Total/NA	Solid	5035	
720-42351-26	FCSO-SS-08(1.0)A	Total/NA	Solid	5035	
720-42351-31	FCSO-SS-09(1.0)A	Total/NA	Solid	5035	
720-42351-36	FCSO-SS-13(1.0)A	Total/NA	Solid	5035	
720-42351-41	FCSO-SS-12(1.0)A	Total/NA	Solid	5035	
720-42351-46	FCSO-SS-10(1.0)A	Total/NA	Solid	5035	
720-42351-51	FCSO-SS-11(1.0)A	Total/NA	Solid	5035	
720-42351-56	FCSO-SS-06(1.0)A	Total/NA	Solid	5035	
720-42351-61	FCSO-SS-14(0.5)A	Total/NA	Solid	5035	
LCS 720-114287/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114287/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114287/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114287/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114287/1-A	Method Blank	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 114446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-5	FCSO-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-5 MS	FCSO-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-5 MSD	FCSO-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-10	FCSO-SS-02 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-15	FCSO-SS-03 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-20	FCSO-SS-04 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-25	FCSO-SS-05 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-30	FCSO-SS-08 A,B,C,D	Silica Gel Cleanup	Solid	3546	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

GC Semi VOA (Continued)

Prep Batch: 114446 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-35	FCSO-SS-09 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-40	FCSO-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114446/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114446/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114446/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-114467/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114467
LCSD 720-114467/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114467
MB 720-114467/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114467

Analysis Batch: 114461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-45	FCSO-SS-12 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114467
720-42351-50	FCSO-SS-10 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114467
720-42351-55	FCSO-SS-11 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114467
720-42351-60	FCSO-SS-06 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114467
720-42351-65	FCSO-SS-14 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114467

Analysis Batch: 114463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-5	FCSO-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-5 MS	FCSO-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-5 MSD	FCSO-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-10	FCSO-SS-02 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-15	FCSO-SS-03 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-20	FCSO-SS-04 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-25	FCSO-SS-05 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-30	FCSO-SS-08 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
720-42351-35	FCSO-SS-09 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446
LCS 720-114446/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114446
LCSD 720-114446/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114446
MB 720-114446/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114446

Prep Batch: 114467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-45	FCSO-SS-12 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-50	FCSO-SS-10 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-55	FCSO-SS-11 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-60	FCSO-SS-06 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42351-65	FCSO-SS-14 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114467/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114467/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114467/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-40	FCSO-SS-13 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114446

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Metals

Prep Batch: 114475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-5	FCSO-SS-01 A,B,C,D	Total/NA	Solid	7471A	
720-42351-10	FCSO-SS-02 A,B,C,D	Total/NA	Solid	7471A	
720-42351-15	FCSO-SS-03 A,B,C,D	Total/NA	Solid	7471A	
720-42351-20	FCSO-SS-04 A,B,C,D	Total/NA	Solid	7471A	
720-42351-25	FCSO-SS-05 A,B,C,D	Total/NA	Solid	7471A	
720-42351-30	FCSO-SS-08 A,B,C,D	Total/NA	Solid	7471A	
720-42351-35	FCSO-SS-09 A,B,C,D	Total/NA	Solid	7471A	
720-42351-40	FCSO-SS-13 A,B,C,D	Total/NA	Solid	7471A	
720-42351-45	FCSO-SS-12 A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114475/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114475/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114475/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 114498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-50	FCSO-SS-10 A,B,C,D	Total/NA	Solid	7471A	
720-42351-55	FCSO-SS-11 A,B,C,D	Total/NA	Solid	7471A	
720-42351-60	FCSO-SS-06 A,B,C,D	Total/NA	Solid	7471A	
720-42351-65	FCSO-SS-14 A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114498/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114498/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114498/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 114549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-5	FCSO-SS-01 A,B,C,D	Total/NA	Solid	3050B	
720-42351-10	FCSO-SS-02 A,B,C,D	Total/NA	Solid	3050B	
720-42351-15	FCSO-SS-03 A,B,C,D	Total/NA	Solid	3050B	
720-42351-20	FCSO-SS-04 A,B,C,D	Total/NA	Solid	3050B	
720-42351-25	FCSO-SS-05 A,B,C,D	Total/NA	Solid	3050B	
720-42351-30	FCSO-SS-08 A,B,C,D	Total/NA	Solid	3050B	
720-42351-35	FCSO-SS-09 A,B,C,D	Total/NA	Solid	3050B	
720-42351-40	FCSO-SS-13 A,B,C,D	Total/NA	Solid	3050B	
720-42351-45	FCSO-SS-12 A,B,C,D	Total/NA	Solid	3050B	
720-42351-50	FCSO-SS-10 A,B,C,D	Total/NA	Solid	3050B	
720-42351-55	FCSO-SS-11 A,B,C,D	Total/NA	Solid	3050B	
720-42351-60	FCSO-SS-06 A,B,C,D	Total/NA	Solid	3050B	
720-42351-65	FCSO-SS-14 A,B,C,D	Total/NA	Solid	3050B	
LCS 720-114549/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-114549/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-114549/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-114549/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-5	FCSO-SS-01 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-10	FCSO-SS-02 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-15	FCSO-SS-03 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-20	FCSO-SS-04 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-25	FCSO-SS-05 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-30	FCSO-SS-08 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-35	FCSO-SS-09 A,B,C,D	Total/NA	Solid	7471A	114475

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Metals (Continued)

Analysis Batch: 114575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-40	FCSO-SS-13 A,B,C,D	Total/NA	Solid	7471A	114475
720-42351-45	FCSO-SS-12 A,B,C,D	Total/NA	Solid	7471A	114475
LCS 720-114475/2-A	Lab Control Sample	Total/NA	Solid	7471A	114475
LCSD 720-114475/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114475
MB 720-114475/1-A	Method Blank	Total/NA	Solid	7471A	114475

Analysis Batch: 114585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-50	FCSO-SS-10 A,B,C,D	Total/NA	Solid	7471A	114498
720-42351-55	FCSO-SS-11 A,B,C,D	Total/NA	Solid	7471A	114498
720-42351-60	FCSO-SS-06 A,B,C,D	Total/NA	Solid	7471A	114498
720-42351-65	FCSO-SS-14 A,B,C,D	Total/NA	Solid	7471A	114498
LCS 720-114498/2-A	Lab Control Sample	Total/NA	Solid	7471A	114498
LCSD 720-114498/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114498
MB 720-114498/1-A	Method Blank	Total/NA	Solid	7471A	114498

Analysis Batch: 114630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-5	FCSO-SS-01 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-10	FCSO-SS-02 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-15	FCSO-SS-03 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-20	FCSO-SS-04 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-25	FCSO-SS-05 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-30	FCSO-SS-08 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-35	FCSO-SS-09 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-45	FCSO-SS-12 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-50	FCSO-SS-10 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-55	FCSO-SS-11 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-60	FCSO-SS-06 A,B,C,D	Total/NA	Solid	6010B	114549
720-42351-65	FCSO-SS-14 A,B,C,D	Total/NA	Solid	6010B	114549
LCS 720-114549/2-A	Lab Control Sample	Total/NA	Solid	6010B	114549
LCSD 720-114549/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	114549
LCSSRM 720-114549/25-A	Lab Control Sample	Total/NA	Solid	6010B	114549
MB 720-114549/1-A	Method Blank	Total/NA	Solid	6010B	114549

Analysis Batch: 114668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-40	FCSO-SS-13 A,B,C,D	Total/NA	Solid	6010B	114549

General Chemistry

Analysis Batch: 114521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-1	FCSO-SS-01(1.0)A	Total/NA	Solid	Moisture	
720-42351-5	FCSO-SS-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-6	FCSO-SS-02(1.0)A	Total/NA	Solid	Moisture	
720-42351-10	FCSO-SS-02 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-11	FCSO-SS-03(1.0)A	Total/NA	Solid	Moisture	
720-42351-15	FCSO-SS-03 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-16	FCSO-SS-04(1.0)A	Total/NA	Solid	Moisture	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

General Chemistry (Continued)

Analysis Batch: 114540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42351-20	FCSO-SS-04 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-20 DU	FCSO-SS-04 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-21	FCSO-SS-05(1.0)A	Total/NA	Solid	Moisture	
720-42351-25	FCSO-SS-05 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-26	FCSO-SS-08(1.0)A	Total/NA	Solid	Moisture	
720-42351-30	FCSO-SS-08 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-31	FCSO-SS-09(1.0)A	Total/NA	Solid	Moisture	
720-42351-35	FCSO-SS-09 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-36	FCSO-SS-13(1.0)A	Total/NA	Solid	Moisture	
720-42351-40	FCSO-SS-13 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-41	FCSO-SS-12(1.0)A	Total/NA	Solid	Moisture	
720-42351-45	FCSO-SS-12 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-46	FCSO-SS-10(1.0)A	Total/NA	Solid	Moisture	
720-42351-50	FCSO-SS-10 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-51	FCSO-SS-11(1.0)A	Total/NA	Solid	Moisture	
720-42351-55	FCSO-SS-11 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-56	FCSO-SS-06(1.0)A	Total/NA	Solid	Moisture	
720-42351-60	FCSO-SS-06 A,B,C,D	Total/NA	Solid	Moisture	
720-42351-61	FCSO-SS-14(0.5)A	Total/NA	Solid	Moisture	
720-42351-65	FCSO-SS-14 A,B,C,D	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-01(1.0)A

Lab Sample ID: 720-42351-1

Date Collected: 05/24/12 09:05

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 11:44	AC	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Client Sample ID: FCSO-SS-01 A,B,C,D

Lab Sample ID: 720-42351-5

Date Collected: 05/24/12 09:00

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 01:17	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:03	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:08	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Client Sample ID: FCSO-SS-02(1.0)A

Lab Sample ID: 720-42351-6

Date Collected: 05/24/12 09:58

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 12:12	AC	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Client Sample ID: FCSO-SS-02 A,B,C,D

Lab Sample ID: 720-42351-10

Date Collected: 05/24/12 09:50

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 79.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 01:41	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:06	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:12	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-03(1.0)A

Lab Sample ID: 720-42351-11

Date Collected: 05/24/12 10:48

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 12:41	AC	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Client Sample ID: FCSO-SS-03 A,B,C,D

Lab Sample ID: 720-42351-15

Date Collected: 05/24/12 10:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 02:06	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:08	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:17	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Client Sample ID: FCSO-SS-04(1.0)A

Lab Sample ID: 720-42351-16

Date Collected: 05/24/12 10:53

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 13:10	AC	TAL SF
Total/NA	Analysis	Moisture		1	114521	05/30/12 21:02	EYT	TAL SF

Client Sample ID: FCSO-SS-04 A,B,C,D

Lab Sample ID: 720-42351-20

Date Collected: 05/24/12 10:53

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 02:30	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:11	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:21	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-05(1.0)A

Lab Sample ID: 720-42351-21

Date Collected: 05/24/12 11:20

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 13:39	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-05 A,B,C,D

Lab Sample ID: 720-42351-25

Date Collected: 05/24/12 11:22

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 02:54	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:18	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:26	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-08(1.0)A

Lab Sample ID: 720-42351-26

Date Collected: 05/24/12 12:50

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 14:08	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-08 A,B,C,D

Lab Sample ID: 720-42351-30

Date Collected: 05/24/12 12:40

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 03:18	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:21	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:30	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-09(1.0)A

Lab Sample ID: 720-42351-31

Date Collected: 05/24/12 13:06

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 14:37	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-09 A,B,C,D

Lab Sample ID: 720-42351-35

Date Collected: 05/24/12 13:06

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114463	05/31/12 03:43	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:23	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:35	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-13(1.0)A

Lab Sample ID: 720-42351-36

Date Collected: 05/24/12 16:24

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 15:06	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-13 A,B,C,D

Lab Sample ID: 720-42351-40

Date Collected: 05/24/12 16:00

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114446	05/29/12 22:51	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114617	06/01/12 12:59	JZ	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:26	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		10	114668	06/01/12 16:51	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-12(1.0)A

Lab Sample ID: 720-42351-41

Date Collected: 05/24/12 15:10

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 81.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 15:35	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-12 A,B,C,D

Lab Sample ID: 720-42351-45

Date Collected: 05/24/12 14:55

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114467	05/30/12 09:25	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114461	05/31/12 01:39	DH	TAL SF
Total/NA	Prep	7471A			114475	05/30/12 11:36	ET	TAL SF
Total/NA	Analysis	7471A		1	114575	05/31/12 15:29	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:44	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-10(1.0)A

Lab Sample ID: 720-42351-46

Date Collected: 05/24/12 13:40

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 16:03	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-10 A,B,C,D

Lab Sample ID: 720-42351-50

Date Collected: 05/24/12 13:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114467	05/30/12 09:25	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114461	05/31/12 02:03	DH	TAL SF
Total/NA	Prep	7471A			114498	05/30/12 15:55	ET	TAL SF
Total/NA	Analysis	7471A		1	114585	05/31/12 16:25	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 02:48	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-11(1.0)A

Lab Sample ID: 720-42351-51

Date Collected: 05/24/12 14:43

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 16:32	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-11 A,B,C,D

Lab Sample ID: 720-42351-55

Date Collected: 05/24/12 14:21

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114467	05/30/12 09:25	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114461	05/31/12 02:26	DH	TAL SF
Total/NA	Prep	7471A			114498	05/30/12 15:55	ET	TAL SF
Total/NA	Analysis	7471A		1	114585	05/31/12 16:27	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 03:01	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-06(1.0)A

Lab Sample ID: 720-42351-56

Date Collected: 05/24/12 12:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 17:01	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-06 A,B,C,D

Lab Sample ID: 720-42351-60

Date Collected: 05/24/12 12:30

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114467	05/30/12 09:25	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114461	05/31/12 02:50	DH	TAL SF
Total/NA	Prep	7471A			114498	05/30/12 15:55	ET	TAL SF
Total/NA	Analysis	7471A		1	114585	05/31/12 16:29	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 03:06	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Client Sample ID: FCSO-SS-14(0.5)A

Lab Sample ID: 720-42351-61

Date Collected: 05/24/12 14:28

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 94.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114287	05/25/12 10:20	YB	TAL SF
Total/NA	Analysis	8260B		1	114263	05/25/12 17:30	AC	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Client Sample ID: FCSO-SS-14 A,B,C,D

Lab Sample ID: 720-42351-65

Date Collected: 05/24/12 14:28

Matrix: Solid

Date Received: 05/24/12 19:00

Percent Solids: 96.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114467	05/30/12 09:25	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114461	05/31/12 03:13	DH	TAL SF
Total/NA	Prep	7471A			114498	05/30/12 15:55	ET	TAL SF
Total/NA	Analysis	7471A		1	114585	05/31/12 16:32	EFH	TAL SF
Total/NA	Prep	3050B			114549	05/31/12 10:58	MP	TAL SF
Total/NA	Analysis	6010B		4	114630	06/01/12 03:10	CAM	TAL SF
Total/NA	Analysis	Moisture		1	114540	05/31/12 09:39	MJK	TAL SF

Laboratory References:

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

Certification Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pleasanton	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

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

Method Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF
Moisture	Percent Moisture	EPA	TAL SF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Sample Summary

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42351-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-42351-1	FCSO-SS-01(1.0)A	Solid	05/24/12 09:05	05/24/12 19:00
720-42351-5	FCSO-SS-01 A,B,C,D	Solid	05/24/12 09:00	05/24/12 19:00
720-42351-6	FCSO-SS-02(1.0)A	Solid	05/24/12 09:58	05/24/12 19:00
720-42351-10	FCSO-SS-02 A,B,C,D	Solid	05/24/12 09:50	05/24/12 19:00
720-42351-11	FCSO-SS-03(1.0)A	Solid	05/24/12 10:48	05/24/12 19:00
720-42351-15	FCSO-SS-03 A,B,C,D	Solid	05/24/12 10:30	05/24/12 19:00
720-42351-16	FCSO-SS-04(1.0)A	Solid	05/24/12 10:53	05/24/12 19:00
720-42351-20	FCSO-SS-04 A,B,C,D	Solid	05/24/12 10:53	05/24/12 19:00
720-42351-21	FCSO-SS-05(1.0)A	Solid	05/24/12 11:20	05/24/12 19:00
720-42351-25	FCSO-SS-05 A,B,C,D	Solid	05/24/12 11:22	05/24/12 19:00
720-42351-26	FCSO-SS-08(1.0)A	Solid	05/24/12 12:50	05/24/12 19:00
720-42351-30	FCSO-SS-08 A,B,C,D	Solid	05/24/12 12:40	05/24/12 19:00
720-42351-31	FCSO-SS-09(1.0)A	Solid	05/24/12 13:06	05/24/12 19:00
720-42351-35	FCSO-SS-09 A,B,C,D	Solid	05/24/12 13:06	05/24/12 19:00
720-42351-36	FCSO-SS-13(1.0)A	Solid	05/24/12 16:24	05/24/12 19:00
720-42351-40	FCSO-SS-13 A,B,C,D	Solid	05/24/12 16:00	05/24/12 19:00
720-42351-41	FCSO-SS-12(1.0)A	Solid	05/24/12 15:10	05/24/12 19:00
720-42351-45	FCSO-SS-12 A,B,C,D	Solid	05/24/12 14:55	05/24/12 19:00
720-42351-46	FCSO-SS-10(1.0)A	Solid	05/24/12 13:40	05/24/12 19:00
720-42351-50	FCSO-SS-10 A,B,C,D	Solid	05/24/12 13:30	05/24/12 19:00
720-42351-51	FCSO-SS-11(1.0)A	Solid	05/24/12 14:43	05/24/12 19:00
720-42351-55	FCSO-SS-11 A,B,C,D	Solid	05/24/12 14:21	05/24/12 19:00
720-42351-56	FCSO-SS-06(1.0)A	Solid	05/24/12 12:30	05/24/12 19:00
720-42351-60	FCSO-SS-06 A,B,C,D	Solid	05/24/12 12:30	05/24/12 19:00
720-42351-61	FCSO-SS-14(0.5)A	Solid	05/24/12 14:28	05/24/12 19:00
720-42351-65	FCSO-SS-14 A,B,C,D	Solid	05/24/12 14:28	05/24/12 19:00





Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42351

Lab No. Test America
 Address 138531

Project Contact (Hardcopy or PDF To):
 Laboratory: T. Angus
 Test America
 Phone No.: 415-730-7688
 Project Number: 2012-031
 Fax No.:
 Phase # / Task #

California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address):
t.angus@errg.com
 Sampler: J. Bratton

Project Address:
Near in Headlands
Bunker Rd
 Project Manager: T. Angus

Sample Designation	Date	Time	Sampling	Container		Matrix	
				Soil	Water		
FCSD-SS-01(1.0)-A	5/24/12	1650	3				
FCSD-SS-01(1.5)-B	5/24/12	1650	3				
FCSD-SS-01(2.0)-C	5/24/12	1650	3				
FCSD-SS-01(2.5)-D	5/24/12	1650	3				
FCSD-SS-01(1.0)-A	5/24/12	1650	3				
FCSD-SS-02(1.5)-B	5/24/12	1650	3				
FCSD-SS-02(2.0)-C	5/24/12	1650	3				
FCSD-SS-02(2.5)-D	5/24/12	1650	3				
FCSD-SS-02(1.0)-A	5/24/12	1650	3				
FCSD-SS-03(1.5)-B	5/24/12	1650	3				

Relinquished by: [Signature] Date: 5/24/12 Time: 1650
 Relinquished by: [Signature] Date: 5/24/12 Time: 1900
 Relinquished by: [Signature] Date: 5/24/12 Time: 1900

Chain-of-Custody Record and Analysis Request

Analysis Request	Number of Containers	Comments	For Lab Use Only
CAM 17 TPH-MNO, DCO TPH-GMO + BTEX	4		1
	1		2
	1		3
	4		4
	1		5
	1		6
	4		7
	1		8
	4		9
	1		10
	1		11
	1		12

Remarks:
 Composite A, B, C, D for
 CAM 17, TPH MNO, DCO
 Silica gel cleanup

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

14.3.10.2.20



ERRC

Engineering / Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, CA 94104
Phone: (415) 395-9974
Fax: (415) 395-9983

Project Contact (Hardcopy or PDF To):

T. Angus

Laboratory:

Test America

Phone No.:

415-730-7688

Fax No.:

415-730-7688

Project Number:

2012-031

Phase # / Task #

Project Name:

Bunker Rd

Project Address:

Marin Headlands

Project Manager:

T. Angus

Sampling

Date

Time

Matrix

Soil

Water

Container

802

1030

1030

1053

1056

1110

1117

1120

1122

1130

1140

1140

1140

1140

1140

1140

1140

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Relinquished by:

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Relinquished by:

[Signature]

Date

5/24/12

12:45

Time Received by:

[Signature]

Date

5/24/12

1900

Time Received by:

[Signature]

Date

5/24/12

Time Received by Laboratory:

[Signature]

[Signature]

California EDF Report?

Yes No

Navy EDD Report?

Yes No

Electronic Deliverables To (Email Address):

t.angus@amrcs.com

Sampler:

S. Johnson & J. Brubaker

Chain-of-Custody Record and Analysis Request

Analysis Request

12 hr / 24 hr / 48 hr / 72 hr (1 wk) TAT

Number of Containers

Comments

For Lab Use Only

15

14

16

17

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Remarks:

Composite A, B, C, D for CAM 17

TPH-MRO, DRO

silica gel cleanup

Bill to: Engineering / Remediation Resources Group, Inc.

4585 Pacheco Blvd, Suite 200

Martinez, CA 94553

720-42351



Lab No. Test America Page 3 of 4
 Address Pleasanton CA
720-42351
138531

Project Contact (Hardcopy or PDF To):
 California EDD Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address):
tiffany.amicus@errg.com
 Sampler: S. Johnson & P. Bratten

Project Address:
Max in Headlands
Project Name:
Bunker Rd
Project Manager:
T. Angus

Sample Designation	Date	Time	Sampling		Container		Matrix	
			Soil	Water	Soil	Water	Soil	Water
FCSD-SS-07(1.0)-A	5/24/12	1630			Soil			
FCSD-SS-07(1.5)-B	5/24/12	1630			Soil			
FCSD-SS-07(1.0)-C	5/24/12	1630			Soil			
FCSD-SS-07(0.5)-D	5/24/12	1630			Soil			
FCSD-SS-08(1.0)-A	5/24/12	1250			Soil			
FCSD-SS-08(1.5)-B	5/24/12	1255			Soil			
FCSD-SS-08(2.0)-C	5/24/12	1305			Soil			
FCSD-SS-08(2.5)-D	5/24/12	1240			Soil			
FCSD-SS-09(1.0)-A	5/24/12	1300			Soil			
FCSD-SS-09(1.5)-B	5/24/12	1310			Soil			

Relinquished by: [Signature] Date 5/24/12 Time Received by: SB SJA
Relinquished by: [Signature] Date 5/24/12 Time Received by: SB SJA
Relinquished by: [Signature] Date 5/24/12 Time Received by: SB SJA

Remarks:
Composite A, B, C, D for CAM 17 & TPH MRO, DCO
Silica Fed cleanup

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553



Lab No. Test America Page 4 of 6
 Address Placeraton CA 138531
720-42351
 Project Contact (Hardcopy or PDF To):
T. Angus
 Laboratory:
 Test America
 Phone No.: 415-730-7658
 Project Number: 2012-031
 Project Name: Bunker Rd
 Project Manager: T. Angus

California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address):
t.angus@angusenergy.com
 Sampler: S. Johnson & P. Bratton
 Project Address: Marin Headlands
 Project Manager: Marin Headlands

Sample Designation	Date	Time	Sampling		Container		Matrix		For Lab Use Only
			Soil	Water	Soil	Water	Soil	Water	
FC50-SS-09(2.0)-A	5/21/12	1317							38
FC50-SS-09(1.0)-A	5/21/12	1318							39
FC50-SS-13(1.0)-A	5/21/12	1340							41
FC50-SS-13(1.5)-B	5/21/12	1345							42
FC50-SS-13(2.0)-C	5/21/12	1350							43
FC50-SS-13(2.0)-D	5/21/12	1406							44
FC50-SS-12(1.0)-A	5/21/12	1510							45
FC50-SS-12(1.5)-B	5/21/12	1500							46
FC50-SS-12(2.0)-C	5/21/12	1455							47
FC50-SS-12(2.5)-D	5/21/12	1507							48

Relinquished by: [Signature] Date 5/24/12 Time Received by: IB Sma
 Relinquished by: [Signature] Date 5/24/12 Time Received by: 1900
 Relinquished by: [Signature] Date 5/24/12 Time Received by: 1900

Chain-of-Custody Record and Analysis Request

Analysis Request	12 hr / 24 hr / 48 hr / 72 hr (STANDARD) (1 wk) TAT	Number of Containers	Comments
CAM 17 TPH-MNO, DCO X TPH-GMO + BTEX	X	1	
X	X	1	
X	X	1	
X	X	1	
X	X	1	
X	X	1	
X	X	1	
X	X	1	
X	X	1	
X	X	1	

Remarks: Composite A, B, C, D for CAM 17
TPH-MNO, DCO
silica gel cleaning
 Bill to: Engineering / Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, CA 94553



ERRG

Engineering / Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, CA 94104
Phone: (415) 395-9974
Fax: (415) 395-9983

Project Contact (Hardcopy or PDF To):

T. Angus

California EDF Report? Yes No

Navy EDD Report? Yes No

Electronic Deliverables To (Email Address):

tiffany.angus@errg.com

Phone No.: 415-730-7658

Fax No.: 415-730-7658

Project Number: 2012-031

Phase # / Task #

Sampler: S. Johnson & P. Bratton

Project Name: Bonker Rd

Project Address: Marin Headlands

Project Manager: T. Angus

Sample Designation

Sampling Date

Container

Matrix

Sample Designation	Sampling Date	Container	Matrix
FC50-SS-10(1.0)-A	1/13/10	8oz	Soil
FC50-SS-10(1.5)-B	1/13/10	3	Soil
FC50-SS-10(2.0)-C	1/13/10	3	Soil
FC50-SS-10(2.5)-D	1/13/10	3	Soil
FC50-SS-11(1.0)-A	1/14/10	3	Soil
FC50-SS-11(1.5)-B	1/14/10	3	Soil
FC50-SS-11(2.0)-C	1/14/10	3	Soil
FC50-SS-11(2.5)-D	1/14/10	3	Soil
FC50-SS-06(1.0)-A	1/23/10	3	Soil
FC50-SS-06(1.5)-B	1/23/10	3	Soil

Relinquished by:

Date

Time Received by:

[Signature] 5/24/12

[Signature] 1/5/10

Relinquished by:

Date

Time Received by:

[Signature] 5/24/12

[Signature] 1/5/10

Relinquished by:

Date

Time Received by Laboratory:

[Signature] 1/5/10

Lab No. *Test America*
Address: *Placer顿 CA*

Page *6* of *6*

720-42351

138531

Chain-of-Custody Record and Analysis Request

Analysis Request	12 hr / 24 hr / 48 hr / 72 hr (1 wk) TAT	Number of Containers	Comments	For Lab Use Only
CAM 17	X	1		51
TPH-MCO, DCO	X	1		52
TPH-GMO + BTEX	X	1		53
TPH-MCO, DCO	X	1		54
TPH-GMO + BTEX	X	1		55
TPH-MCO, DCO	X	1		56
TPH-GMO + BTEX	X	1		57
TPH-MCO, DCO	X	1		58
TPH-GMO + BTEX	X	1		59
TPH-MCO, DCO	X	1		60
TPH-GMO + BTEX	X	1		61
TPH-MCO, DCO	X	1		62

Remarks:

Composite A, B, C, D for CAM17, TPH MCO, DCO
Silica gel cleanup

Bill to: Engineering / Remediation Resources Group, Inc.

4585 Pacheco Blvd, Suite 200
Martinez, CA 94553





ERRG

Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42351

138531

Lab No. Test America's
 Address Dearborn St

Page 6 of 6

Project Contact (Hardcopy or PDF To):
 T. Angus

California EDF Report?
 Navy EDD Report?

Yes No
 Yes No

Laboratory:
 Test America

Electronic Deliverables To (Email Address):
 t.angus@errg.com

Chain-of-Custody Record and Analysis Request

Analysis Request

Phone No.:

415-330-7688

Sampler: S. Johnson & P. Bruffen

Project Number:

2012-031

Project Address: Marin Headlands

Project Name:

Bunker Rd

Project Manager:

T. Angus

Sample Designation

FCO-SS-06(2.0)-C
 FCS0-SS-06(0.5)-D
 FCS0-SS-14(0.5)-A
 FCS0-SS-14(0.5)-B
 FCS0-SS-14(0.5)-C
 FCS0-SS-14(0.5)-D

Date Time

5/21/12 12:30
 12/4/12 1
 1/28/13 1
 1/31/13 1
 1/4/13 1
 1/5/13 1

Soil
 Water

CAM 17
 TPH-MRO, DRO
 TPH-GRO + BTEX

12 hr/ 24 hr/ 48 hr/ 72 hr/ STD (1 wk) TAT

Number of Containers

Comments

For Lab Use Only

Sample Designation	Date Time	Matrix	Analysis Request	TAT	Number of Containers	Comments	For Lab Use Only
FCO-SS-06(2.0)-C	5/21/12 12:30	X	X	X	1		63
FCS0-SS-06(0.5)-D	12/4/12 1	X	X	X	1		64
FCS0-SS-14(0.5)-A	1/28/13 1	X	X	X	1		66
FCS0-SS-14(0.5)-B	1/31/13 1	X	X	X	1		67
FCS0-SS-14(0.5)-C	1/4/13 1	X	X	X	1		68
FCS0-SS-14(0.5)-D	1/5/13 1	X	X	X	1		69

Relinquished by: [Signature]
 Date: 5/21/12 Time: 16:50
 Received by: [Signature]

Remarks:
 Composite A, B, C, & D for
 CAM 17 TPH MRO, DRO
 silica gel cleanup

Relinquished by: [Signature]
 Date: 5/24/12 Time: 19:00
 Received by: [Signature]

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

Login Sample Receipt Checklist

Client: Engineering Remediation Resources Group.

Job Number: 720-42351-1

Login Number: 42351

List Number: 1

Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-42465-1

Client Project/Site: Bunker Rd-Marin Headlands

For:

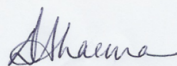
Engineering Remediation Resources Group.

115 Sansome Street

Suite 200

San Francisco, California 94104

Attn: Tiffany Angus



Authorized for release by:

6/8/2012 3:28:27 PM

Dimple Sharma

Project Manager I

dimple.sharma@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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

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

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Definitions/Glossary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marin Headlands

TestAmerica Job ID: 720-42465-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Job ID: 720-42465-1

Laboratory: TestAmerica Pleasanton

Narrative

**Job Narrative
720-42465-1**

Comments

No additional comments.

Receipt

The samples were received on 6/1/2012 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Except:

The following sample(s) will be composited by the laboratory as requested on the chain-of-custody: all A,B,C,D sample sets for CAM 17 & TPH-DRO,MRO-SG.

The container label sample times for the following sample(s) did not match the information listed on the Chain-of-Custody (COC):

RR-SP-01 (0.5)-A. The ENCORE bags labels list times: (3 bags)11:20 & (3 bags) 13:40. The COC lists two 11:20 (#16 & #31).

NOTE: Page 2 (8 oz soil jars) COC (#16-#19) RR-SP-01(0.5) -A @11:20, RR-SP-01(0.5)-B @11:35,

RR-SP-01(0.5)-C @11:45, RR-SP-01(0.5)-D @ 11:30, then they are repeated again on pg 3.

#31 COC list :RR-SP-01 (0.5)-A @11:20, 8oz jar label lists :RR-SP-01 (0.5)-A @13:40

#32 COC list :RR-SP-01 (0.5)-B @11:35, 8oz jar label lists :RR-SP-01 (0.5)-B @13:44

#33 COC list :RR-SP-01 (0.5)-C @11:45, 8oz jar label lists :RR-SP-01 (0.5)-C @13:47 (The sample ID on the lid is RR-SP-01(0.5)-D@ 13:53)

#34 COC list :RR-SP-01 (0.5)-D @11:30, 8oz jar label lists :RR-SP-01 (0.5)-D @13:53 (The sample ID on the lid is RR-SP-01 (0.5) -C@ 13:47).

Labeled #31,#32,#33 and #34 by 8oz jar sample label times.

#12 The COC lists BR-SS-02 (0.)-B , sample label lists BR-SS-02-(0.5)-B.

#11 The COC lists time for BR-SS-02 (0.5) @ 10:20, sample label time is listed @ 10:25

#8 The COC lists BR-SS-01 (1.0)-C @ 09335, sample label lists time is listed @ 09:35

GC/MS VOA

No analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: AA-SS-01 (1.5)-A

Lab Sample ID: 720-42465-1

No Detections

Client Sample ID: AA-SS-01 A,B,C,D

Lab Sample ID: 720-42465-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	16		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	81		53		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	4.9		4.3		mg/Kg	4	*	6010B	Total/NA
Barium	190		2.1		mg/Kg	4	*	6010B	Total/NA
Chromium	35		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	40		0.85		mg/Kg	4	*	6010B	Total/NA
Copper	55		6.4		mg/Kg	4	*	6010B	Total/NA
Lead	120		2.1		mg/Kg	4	*	6010B	Total/NA
Nickel	31		2.1		mg/Kg	4	*	6010B	Total/NA
Vanadium	200		2.1		mg/Kg	4	*	6010B	Total/NA
Zinc	140		6.4		mg/Kg	4	*	6010B	Total/NA
Mercury	0.037		0.010		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: BR-SS-01 (2.0)-A

Lab Sample ID: 720-42465-6

No Detections

Client Sample ID: BR-SS-01 A,B,C,D

Lab Sample ID: 720-42465-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	4.7		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	4.3		4.1		mg/Kg	4	*	6010B	Total/NA
Barium	330		2.1		mg/Kg	4	*	6010B	Total/NA
Beryllium	0.58		0.41		mg/Kg	4	*	6010B	Total/NA
Chromium	30		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	19		0.82		mg/Kg	4	*	6010B	Total/NA
Copper	120		6.2		mg/Kg	4	*	6010B	Total/NA
Lead	84		2.1		mg/Kg	4	*	6010B	Total/NA
Nickel	32		2.1		mg/Kg	4	*	6010B	Total/NA
Vanadium	59		2.1		mg/Kg	4	*	6010B	Total/NA
Zinc	52		6.2		mg/Kg	4	*	6010B	Total/NA
Mercury	0.11		0.011		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: BR-SS-02 (0.5)-A

Lab Sample ID: 720-42465-11

No Detections

Client Sample ID: BR-SS-02 A,B,C,D

Lab Sample ID: 720-42465-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	11		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	85		53		mg/Kg	1	*	8015B	Silica Gel Cleanup
Barium	220		1.9		mg/Kg	4	*	6010B	Total/NA
Chromium	32		1.9		mg/Kg	4	*	6010B	Total/NA
Cobalt	19		0.78		mg/Kg	4	*	6010B	Total/NA
Copper	70		5.8		mg/Kg	4	*	6010B	Total/NA

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: BR-SS-02 A,B,C,D (Continued)

Lab Sample ID: 720-42465-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	22		1.9		mg/Kg	4	☼	6010B	Total/NA
Nickel	29		1.9		mg/Kg	4	☼	6010B	Total/NA
Vanadium	97		1.9		mg/Kg	4	☼	6010B	Total/NA
Zinc	51		5.8		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.14		0.0098		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: RR-SP-01 (0.5)-A

Lab Sample ID: 720-42465-16

No Detections

Client Sample ID: RR-SP-01 A,B,C,D

Lab Sample ID: 720-42465-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	28		2.1		mg/Kg	2	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	180		110		mg/Kg	2	☼	8015B	Silica Gel Cleanup
Arsenic	4.4		4.0		mg/Kg	4	☼	6010B	Total/NA
Barium	620		2.0		mg/Kg	4	☼	6010B	Total/NA
Chromium	35		2.0		mg/Kg	4	☼	6010B	Total/NA
Cobalt	27		0.81		mg/Kg	4	☼	6010B	Total/NA
Copper	96		6.1		mg/Kg	4	☼	6010B	Total/NA
Lead	21		2.0		mg/Kg	4	☼	6010B	Total/NA
Nickel	37		2.0		mg/Kg	4	☼	6010B	Total/NA
Vanadium	130		2.0		mg/Kg	4	☼	6010B	Total/NA
Zinc	72		6.1		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.072		0.010		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: DW-WC-01-A

Lab Sample ID: 720-42465-21

No Detections

Client Sample ID: DW-WC-01 A,B,C,D

Lab Sample ID: 720-42465-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	26		2.3		mg/Kg	2	☼	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	140		120		mg/Kg	2	☼	8015B	Silica Gel Cleanup
Barium	310		2.2		mg/Kg	4	☼	6010B	Total/NA
Chromium	51		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	21		0.88		mg/Kg	4	☼	6010B	Total/NA
Copper	52		6.6		mg/Kg	4	☼	6010B	Total/NA
Lead	28		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	36		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	100		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	93		6.6		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.061		0.011		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: RR-SP-02 (0.5)-A

Lab Sample ID: 720-42465-26

No Detections

Client Sample ID: RR-SP-02 A,B,C,D

Lab Sample ID: 720-42465-30

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-02 A,B,C,D (Continued)

Lab Sample ID: 720-42465-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	34		2.1		mg/Kg	2	*	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	190		100		mg/Kg	2	*	8015B	Silica Gel Cleanup
Arsenic	4.6		4.0		mg/Kg	4	*	6010B	Total/NA
Barium	370		2.0		mg/Kg	4	*	6010B	Total/NA
Chromium	41		2.0		mg/Kg	4	*	6010B	Total/NA
Cobalt	25		0.79		mg/Kg	4	*	6010B	Total/NA
Copper	83		5.9		mg/Kg	4	*	6010B	Total/NA
Lead	21		2.0		mg/Kg	4	*	6010B	Total/NA
Nickel	33		2.0		mg/Kg	4	*	6010B	Total/NA
Vanadium	140		2.0		mg/Kg	4	*	6010B	Total/NA
Zinc	73		5.9		mg/Kg	4	*	6010B	Total/NA
Mercury	0.10		0.0093		mg/Kg	1	*	7471A	Total/NA

Client Sample ID: RR-SP-01 (0.5)-A

Lab Sample ID: 720-42465-31

No Detections

Client Sample ID: RR-SP-01 A,B,C,D

Lab Sample ID: 720-42465-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	6.6		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	7.9		4.2		mg/Kg	4	*	6010B	Total/NA
Barium	460		2.1		mg/Kg	4	*	6010B	Total/NA
Chromium	21		2.1		mg/Kg	4	*	6010B	Total/NA
Cobalt	13		0.83		mg/Kg	4	*	6010B	Total/NA
Copper	100		6.3		mg/Kg	4	*	6010B	Total/NA
Lead	16		2.1		mg/Kg	4	*	6010B	Total/NA
Nickel	31		2.1		mg/Kg	4	*	6010B	Total/NA
Thallium	2.6		2.1		mg/Kg	4	*	6010B	Total/NA
Vanadium	100		2.1		mg/Kg	4	*	6010B	Total/NA
Zinc	64		6.3		mg/Kg	4	*	6010B	Total/NA
Mercury	0.049		0.010		mg/Kg	1	*	7471A	Total/NA

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: AA-SS-01 (1.5)-A

Lab Sample ID: 720-42465-1

Date Collected: 05/31/12 08:00

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 89.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.8		ug/Kg	☼	06/01/12 19:30	06/04/12 12:32	1
Ethylbenzene	ND		5.8		ug/Kg	☼	06/01/12 19:30	06/04/12 12:32	1
Toluene	ND		5.8		ug/Kg	☼	06/01/12 19:30	06/04/12 12:32	1
Xylenes, Total	ND		12		ug/Kg	☼	06/01/12 19:30	06/04/12 12:32	1
Gasoline Range Organics (GRO) -C5-C12	ND		290		ug/Kg	☼	06/01/12 19:30	06/04/12 12:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	76		45 - 131	06/01/12 19:30	06/04/12 12:32	1
1,2-Dichloroethane-d4 (Surr)	109		60 - 140	06/01/12 19:30	06/04/12 12:32	1
Toluene-d8 (Surr)	94		58 - 140	06/01/12 19:30	06/04/12 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: AA-SS-01 A,B,C,D

Lab Sample ID: 720-42465-5

Date Collected: 05/31/12 08:00

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 92.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	16		1.1		mg/Kg	☼	06/05/12 14:31	06/07/12 15:56	1
Motor Oil Range Organics [C24-C36]	81		53		mg/Kg	☼	06/05/12 14:31	06/07/12 15:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.04		0 - 1				06/05/12 14:31	06/07/12 15:56	1
p-Terphenyl	98		38 - 148				06/05/12 14:31	06/07/12 15:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Arsenic	4.9		4.3		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Barium	190		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Beryllium	ND		0.43		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Cadmium	ND		0.53		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Chromium	35		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Cobalt	40		0.85		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Copper	55		6.4		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Lead	120		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Molybdenum	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Nickel	31		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Selenium	ND		4.3		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Silver	ND		1.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Thallium	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Vanadium	200		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4
Zinc	140		6.4		mg/Kg	☼	06/05/12 16:06	06/06/12 23:06	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.010		mg/Kg	☼	06/06/12 12:11	06/08/12 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.3		0.10		%			06/04/12 10:49	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: BR-SS-01 (2.0)-A

Lab Sample ID: 720-42465-6

Date Collected: 05/31/12 09:11

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 89.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.6		ug/Kg	☼	06/01/12 19:30	06/04/12 19:54	1
Ethylbenzene	ND		4.6		ug/Kg	☼	06/01/12 19:30	06/04/12 19:54	1
Toluene	ND		4.6		ug/Kg	☼	06/01/12 19:30	06/04/12 19:54	1
Xylenes, Total	ND		9.1		ug/Kg	☼	06/01/12 19:30	06/04/12 19:54	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg	☼	06/01/12 19:30	06/04/12 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		45 - 131	06/01/12 19:30	06/04/12 19:54	1
1,2-Dichloroethane-d4 (Surr)	109		60 - 140	06/01/12 19:30	06/04/12 19:54	1
Toluene-d8 (Surr)	98		58 - 140	06/01/12 19:30	06/04/12 19:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: BR-SS-01 A,B,C,D

Lab Sample ID: 720-42465-10

Date Collected: 05/31/12 09:11

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 92.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4.7		1.1		mg/Kg	☼	06/05/12 14:31	06/07/12 16:20	1
Motor Oil Range Organics [C24-C36]	ND		53		mg/Kg	☼	06/05/12 14:31	06/07/12 16:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 1				06/05/12 14:31	06/07/12 16:20	1
p-Terphenyl	90		38 - 148				06/05/12 14:31	06/07/12 16:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Arsenic	4.3		4.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Barium	330		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Beryllium	0.58		0.41		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Cadmium	ND		0.51		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Chromium	30		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Cobalt	19		0.82		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Copper	120		6.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Lead	84		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Molybdenum	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Nickel	32		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Selenium	ND		4.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Silver	ND		1.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Thallium	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Vanadium	59		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4
Zinc	52		6.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:10	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.011		mg/Kg	☼	06/06/12 12:11	06/08/12 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.2		0.10		%			06/04/12 10:49	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: BR-SS-02 (0.5)-A

Lab Sample ID: 720-42465-11

Date Collected: 05/31/12 10:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 95.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.8		ug/Kg	☼	06/01/12 19:30	06/04/12 20:23	1
Ethylbenzene	ND		4.8		ug/Kg	☼	06/01/12 19:30	06/04/12 20:23	1
Toluene	ND		4.8		ug/Kg	☼	06/01/12 19:30	06/04/12 20:23	1
Xylenes, Total	ND		9.7		ug/Kg	☼	06/01/12 19:30	06/04/12 20:23	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg	☼	06/01/12 19:30	06/04/12 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		45 - 131	06/01/12 19:30	06/04/12 20:23	1
1,2-Dichloroethane-d4 (Surr)	116		60 - 140	06/01/12 19:30	06/04/12 20:23	1
Toluene-d8 (Surr)	95		58 - 140	06/01/12 19:30	06/04/12 20:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.2		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: BR-SS-02 A,B,C,D

Lab Sample ID: 720-42465-15

Date Collected: 05/31/12 10:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 94.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	11		1.1		mg/Kg	☼	06/05/12 14:31	06/07/12 17:11	1
Motor Oil Range Organics [C24-C36]	85		53		mg/Kg	☼	06/05/12 14:31	06/07/12 17:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				06/05/12 14:31	06/07/12 17:11	1
p-Terphenyl	77		38 - 148				06/05/12 14:31	06/07/12 17:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Arsenic	ND		3.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Barium	220		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Beryllium	ND		0.39		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Cadmium	ND		0.49		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Chromium	32		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Cobalt	19		0.78		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Copper	70		5.8		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Lead	22		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Molybdenum	ND		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Nickel	29		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Selenium	ND		3.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Silver	ND		0.97		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Thallium	ND		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Vanadium	97		1.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4
Zinc	51		5.8		mg/Kg	☼	06/05/12 16:06	06/06/12 23:15	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.0098		mg/Kg	☼	06/06/12 12:11	06/08/12 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.5		0.10		%			06/04/12 10:49	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-01 (0.5)-A

Lab Sample ID: 720-42465-16

Date Collected: 05/31/12 11:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 91.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.7		ug/Kg	✱	06/01/12 19:30	06/04/12 20:52	1
Ethylbenzene	ND		6.7		ug/Kg	✱	06/01/12 19:30	06/04/12 20:52	1
Toluene	ND		6.7		ug/Kg	✱	06/01/12 19:30	06/04/12 20:52	1
Xylenes, Total	ND		13		ug/Kg	✱	06/01/12 19:30	06/04/12 20:52	1
Gasoline Range Organics (GRO) -C5-C12	ND		330		ug/Kg	✱	06/01/12 19:30	06/04/12 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		45 - 131	06/01/12 19:30	06/04/12 20:52	1
1,2-Dichloroethane-d4 (Surr)	116		60 - 140	06/01/12 19:30	06/04/12 20:52	1
Toluene-d8 (Surr)	95		58 - 140	06/01/12 19:30	06/04/12 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.7		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-01 A,B,C,D

Lab Sample ID: 720-42465-20

Date Collected: 05/31/12 11:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	28		2.1		mg/Kg	☼	06/05/12 14:31	06/07/12 17:36	2
Motor Oil Range Organics [C24-C36]	180		110		mg/Kg	☼	06/05/12 14:31	06/07/12 17:36	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.06		0 - 1				06/05/12 14:31	06/07/12 17:36	2
p-Terphenyl	74		38 - 148				06/05/12 14:31	06/07/12 17:36	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Arsenic	4.4		4.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Barium	620		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Beryllium	ND		0.40		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Cadmium	ND		0.51		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Chromium	35		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Cobalt	27		0.81		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Copper	96		6.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Lead	21		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Molybdenum	ND		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Nickel	37		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Selenium	ND		4.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Silver	ND		1.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Thallium	ND		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Vanadium	130		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4
Zinc	72		6.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:19	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.072		0.010		mg/Kg	☼	06/06/12 12:11	06/08/12 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.7		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: DW-WC-01-A

Lab Sample ID: 720-42465-21

Date Collected: 05/31/12 12:45

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 79.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.6		ug/Kg	☼	06/01/12 19:30	06/04/12 21:20	1
Ethylbenzene	ND		5.6		ug/Kg	☼	06/01/12 19:30	06/04/12 21:20	1
Toluene	ND		5.6		ug/Kg	☼	06/01/12 19:30	06/04/12 21:20	1
Xylenes, Total	ND		11		ug/Kg	☼	06/01/12 19:30	06/04/12 21:20	1
Gasoline Range Organics (GRO) -C5-C12	ND		280		ug/Kg	☼	06/01/12 19:30	06/04/12 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		45 - 131	06/01/12 19:30	06/04/12 21:20	1
1,2-Dichloroethane-d4 (Surr)	116		60 - 140	06/01/12 19:30	06/04/12 21:20	1
Toluene-d8 (Surr)	96		58 - 140	06/01/12 19:30	06/04/12 21:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: DW-WC-01 A,B,C,D

Lab Sample ID: 720-42465-25

Date Collected: 05/31/12 12:45

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	26		2.3		mg/Kg	☼	06/05/12 14:31	06/07/12 18:00	2
Motor Oil Range Organics [C24-C36]	140		120		mg/Kg	☼	06/05/12 14:31	06/07/12 18:00	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	2	X	0 - 1				06/05/12 14:31	06/07/12 18:00	2
p-Terphenyl	69		38 - 148				06/05/12 14:31	06/07/12 18:00	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Arsenic	ND		4.4		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Barium	310		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Beryllium	ND		0.44		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Cadmium	ND		0.55		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Chromium	51		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Cobalt	21		0.88		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Copper	52		6.6		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Lead	28		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Molybdenum	ND		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Nickel	36		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Selenium	ND		4.4		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Silver	ND		1.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Thallium	ND		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Vanadium	100		2.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4
Zinc	93		6.6		mg/Kg	☼	06/05/12 16:06	06/06/12 23:23	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061		0.011		mg/Kg	☼	06/06/12 12:11	06/08/12 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-02 (0.5)-A

Lab Sample ID: 720-42465-26

Date Collected: 05/31/12 13:55

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 97.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.0		ug/Kg	☼	06/01/12 19:30	06/04/12 21:49	1
Ethylbenzene	ND		6.0		ug/Kg	☼	06/01/12 19:30	06/04/12 21:49	1
Toluene	ND		6.0		ug/Kg	☼	06/01/12 19:30	06/04/12 21:49	1
Xylenes, Total	ND		12		ug/Kg	☼	06/01/12 19:30	06/04/12 21:49	1
Gasoline Range Organics (GRO) -C5-C12	ND		300		ug/Kg	☼	06/01/12 19:30	06/04/12 21:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	83		45 - 131	06/01/12 19:30	06/04/12 21:49	1
1,2-Dichloroethane-d4 (Surr)	120		60 - 140	06/01/12 19:30	06/04/12 21:49	1
Toluene-d8 (Surr)	91		58 - 140	06/01/12 19:30	06/04/12 21:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.4		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-02 A,B,C,D

Lab Sample ID: 720-42465-30

Date Collected: 05/31/12 13:35

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 96.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	34		2.1		mg/Kg	☼	06/05/12 14:31	06/07/12 18:24	2
Motor Oil Range Organics [C24-C36]	190		100		mg/Kg	☼	06/05/12 14:31	06/07/12 18:24	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.5		0 - 1				06/05/12 14:31	06/07/12 18:24	2
p-Terphenyl	71		38 - 148				06/05/12 14:31	06/07/12 18:24	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Arsenic	4.6		4.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Barium	370		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Beryllium	ND		0.40		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Cadmium	ND		0.50		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Chromium	41		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Cobalt	25		0.79		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Copper	83		5.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Lead	21		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Molybdenum	ND		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Nickel	33		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Selenium	ND		4.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Silver	ND		0.99		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Thallium	ND		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Vanadium	140		2.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4
Zinc	73		5.9		mg/Kg	☼	06/05/12 16:06	06/06/12 23:28	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10		0.0093		mg/Kg	☼	06/06/12 12:11	06/08/12 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
 Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-01 (0.5)-A

Lab Sample ID: 720-42465-31

Date Collected: 05/31/12 13:40

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 94.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.8		ug/Kg	☼	06/01/12 19:30	06/04/12 22:18	1
Ethylbenzene	ND		5.8		ug/Kg	☼	06/01/12 19:30	06/04/12 22:18	1
Toluene	ND		5.8		ug/Kg	☼	06/01/12 19:30	06/04/12 22:18	1
Xylenes, Total	ND		12		ug/Kg	☼	06/01/12 19:30	06/04/12 22:18	1
Gasoline Range Organics (GRO) -C5-C12	ND		290		ug/Kg	☼	06/01/12 19:30	06/04/12 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131	06/01/12 19:30	06/04/12 22:18	1
1,2-Dichloroethane-d4 (Surr)	115		60 - 140	06/01/12 19:30	06/04/12 22:18	1
Toluene-d8 (Surr)	97		58 - 140	06/01/12 19:30	06/04/12 22:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.5		0.10		%			06/04/12 21:13	1

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-01 A,B,C,D

Lab Sample ID: 720-42465-35

Date Collected: 05/31/12 13:40

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 93.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	6.6		1.1		mg/Kg	☼	06/05/12 14:31	06/07/12 19:13	1
Motor Oil Range Organics [C24-C36]	ND		54		mg/Kg	☼	06/05/12 14:31	06/07/12 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 1				06/05/12 14:31	06/07/12 19:13	1
p-Terphenyl	85		38 - 148				06/05/12 14:31	06/07/12 19:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Arsenic	7.9		4.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Barium	460		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Beryllium	ND		0.42		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Cadmium	ND		0.52		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Chromium	21		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Cobalt	13		0.83		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Copper	100		6.3		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Lead	16		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Molybdenum	ND		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Nickel	31		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Selenium	ND		4.2		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Silver	ND		1.0		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Thallium	2.6		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Vanadium	100		2.1		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4
Zinc	64		6.3		mg/Kg	☼	06/05/12 16:06	06/06/12 23:32	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.010		mg/Kg	☼	06/06/12 12:11	06/08/12 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.0		0.10		%			06/04/12 21:13	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-114737/1-A
Matrix: Solid
Analysis Batch: 114735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114737

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		06/04/12 07:00	06/04/12 09:10	1
Ethylbenzene	ND		5.0		ug/Kg		06/04/12 07:00	06/04/12 09:10	1
Toluene	ND		5.0		ug/Kg		06/04/12 07:00	06/04/12 09:10	1
Xylenes, Total	ND		10		ug/Kg		06/04/12 07:00	06/04/12 09:10	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		06/04/12 07:00	06/04/12 09:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131	06/04/12 07:00	06/04/12 09:10	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140	06/04/12 07:00	06/04/12 09:10	1
Toluene-d8 (Surr)	99		58 - 140	06/04/12 07:00	06/04/12 09:10	1

Lab Sample ID: LCS 720-114737/2-A
Matrix: Solid
Analysis Batch: 114735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114737

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.6		ug/Kg		97	70 - 130
Ethylbenzene	50.0	50.2		ug/Kg		100	80 - 137
Toluene	50.0	48.4		ug/Kg		97	80 - 128
m-Xylene & p-Xylene	100	106		ug/Kg		106	70 - 146
o-Xylene	50.0	54.6		ug/Kg		109	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	104		60 - 140
Toluene-d8 (Surr)	103		58 - 140

Lab Sample ID: LCS 720-114737/4-A
Matrix: Solid
Analysis Batch: 114735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114737

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	929		ug/Kg		93	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		45 - 131
1,2-Dichloroethane-d4 (Surr)	103		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114737/3-A
Matrix: Solid
Analysis Batch: 114735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114737

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	48.8		ug/Kg		98	70 - 130	0	20
Ethylbenzene	50.0	50.0		ug/Kg		100	80 - 137	0	20
Toluene	50.0	48.0		ug/Kg		96	80 - 128	1	20

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-114737/3-A

Matrix: Solid

Analysis Batch: 114735

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114737

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	100	106		ug/Kg		106	70 - 146	0	20
o-Xylene	50.0	54.4		ug/Kg		109	70 - 140	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	107		45 - 131
1,2-Dichloroethane-d4 (Surr)	104		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCSD 720-114737/5-A

Matrix: Solid

Analysis Batch: 114735

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114737

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	902		ug/Kg		90	61 - 128	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	103		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: MB 720-114779/1-A

Matrix: Solid

Analysis Batch: 114762

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		06/04/12 16:00	06/04/12 16:32	1
Ethylbenzene	ND		5.0		ug/Kg		06/04/12 16:00	06/04/12 16:32	1
Toluene	ND		5.0		ug/Kg		06/04/12 16:00	06/04/12 16:32	1
Xylenes, Total	ND		10		ug/Kg		06/04/12 16:00	06/04/12 16:32	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		06/04/12 16:00	06/04/12 16:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		45 - 131	06/04/12 16:00	06/04/12 16:32	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140	06/04/12 16:00	06/04/12 16:32	1
Toluene-d8 (Surr)	99		58 - 140	06/04/12 16:00	06/04/12 16:32	1

Lab Sample ID: LCS 720-114779/2-A

Matrix: Solid

Analysis Batch: 114762

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.6		ug/Kg		97	70 - 130
Ethylbenzene	50.0	47.8		ug/Kg		96	80 - 137
Toluene	50.0	48.0		ug/Kg		96	80 - 128
m-Xylene & p-Xylene	100	107		ug/Kg		107	70 - 146
o-Xylene	50.0	52.8		ug/Kg		106	70 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-114779/2-A

Matrix: Solid

Analysis Batch: 114762

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114779

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	108		60 - 140
Toluene-d8 (Surr)	102		58 - 140

Lab Sample ID: LCS 720-114779/4-A

Matrix: Solid

Analysis Batch: 114762

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	Limits
Gasoline Range Organics (GRO) -C5-C12	1000	893		ug/Kg	-	89	61 - 128	-

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	105		45 - 131
1,2-Dichloroethane-d4 (Surr)	111		60 - 140
Toluene-d8 (Surr)	100		58 - 140

Lab Sample ID: LCSD 720-114779/3-A

Matrix: Solid

Analysis Batch: 114762

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	Limits	RPD	Limit
Benzene	50.0	47.6		ug/Kg	-	95	70 - 130	2	20	
Ethylbenzene	50.0	47.8		ug/Kg	-	96	80 - 137	0	20	
Toluene	50.0	47.6		ug/Kg	-	95	80 - 128	1	20	
m-Xylene & p-Xylene	100	107		ug/Kg	-	107	70 - 146	0	20	
o-Xylene	50.0	52.2		ug/Kg	-	104	70 - 140	1	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	103		45 - 131
1,2-Dichloroethane-d4 (Surr)	107		60 - 140
Toluene-d8 (Surr)	101		58 - 140

Lab Sample ID: LCSD 720-114779/5-A

Matrix: Solid

Analysis Batch: 114762

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	Limits	RPD	Limit
Gasoline Range Organics (GRO) -C5-C12	1000	875		ug/Kg	-	88	61 - 128	2	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	102		45 - 131
1,2-Dichloroethane-d4 (Surr)	107		60 - 140
Toluene-d8 (Surr)	100		58 - 140

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

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

Lab Sample ID: MB 720-114830/1-A
Matrix: Solid
Analysis Batch: 114957

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 114830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		06/05/12 14:31	06/07/12 21:15	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		06/05/12 14:31	06/07/12 21:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	06/05/12 14:31	06/07/12 21:15	1
p-Terphenyl	91		38 - 148	06/05/12 14:31	06/07/12 21:15	1

Lab Sample ID: LCS 720-114830/2-A
Matrix: Solid
Analysis Batch: 114957

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 114830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diesel Range Organics [C10-C28]	83.1	69.6		mg/Kg		84	36 - 112

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	75		38 - 148

Lab Sample ID: LCSD 720-114830/3-A
Matrix: Solid
Analysis Batch: 114957

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 114830

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	82.3	61.4		mg/Kg		75	36 - 112	13	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	70		38 - 148

Lab Sample ID: 720-42465-5 MS
Matrix: Solid
Analysis Batch: 114957

Client Sample ID: AA-SS-01 A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114830

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	16		88.8	69.1		mg/Kg	☼	60	50 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
p-Terphenyl	48		38 - 148

Lab Sample ID: 720-42465-5 MSD
Matrix: Solid
Analysis Batch: 114957

Client Sample ID: AA-SS-01 A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	16		88.9	82.1		mg/Kg	☼	75	50 - 150	17	30

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

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

Lab Sample ID: 720-42465-5 MSD
Matrix: Solid
Analysis Batch: 114957

Client Sample ID: AA-SS-01 A,B,C,D
Prep Type: Silica Gel Cleanup
Prep Batch: 114830

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
p-Terphenyl	59		38 - 148

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-114851/1-A
Matrix: Solid
Analysis Batch: 114954

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114851

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Arsenic	ND		1.0		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Barium	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Beryllium	ND		0.10		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Cadmium	ND		0.13		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Chromium	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Cobalt	ND		0.20		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Copper	ND		1.5		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Lead	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Molybdenum	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Nickel	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Selenium	ND		1.0		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Silver	ND		0.25		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Thallium	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Vanadium	ND		0.50		mg/Kg		06/05/12 16:06	06/06/12 21:41	1
Zinc	ND		1.5		mg/Kg		06/05/12 16:06	06/06/12 21:41	1

Lab Sample ID: LCS 720-114851/2-A
Matrix: Solid
Analysis Batch: 114954

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114851

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	50.0	49.0		mg/Kg		98	80 - 120
Arsenic	50.0	51.8		mg/Kg		104	80 - 120
Barium	50.0	51.8		mg/Kg		104	80 - 120
Beryllium	50.0	51.4		mg/Kg		103	80 - 120
Cadmium	50.0	50.6		mg/Kg		101	80 - 120
Chromium	50.0	51.3		mg/Kg		103	80 - 120
Cobalt	50.0	53.9		mg/Kg		108	80 - 120
Copper	50.0	51.8		mg/Kg		104	80 - 120
Lead	50.0	53.4		mg/Kg		107	80 - 120
Molybdenum	50.0	52.8		mg/Kg		106	80 - 120
Nickel	50.0	52.3		mg/Kg		105	80 - 120
Selenium	50.0	50.6		mg/Kg		101	80 - 120
Silver	25.0	24.7		mg/Kg		99	80 - 120
Thallium	50.0	52.9		mg/Kg		106	80 - 120
Vanadium	50.0	52.2		mg/Kg		104	80 - 120
Zinc	50.0	52.7		mg/Kg		105	80 - 120

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

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

Lab Sample ID: LCSD 720-114851/3-A

Matrix: Solid

Analysis Batch: 114954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114851

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Antimony	50.0	50.7		mg/Kg		101	80 - 120	3	20	
Arsenic	50.0	53.0		mg/Kg		106	80 - 120	2	20	
Barium	50.0	52.8		mg/Kg		106	80 - 120	2	20	
Beryllium	50.0	52.8		mg/Kg		106	80 - 120	3	20	
Cadmium	50.0	52.1		mg/Kg		104	80 - 120	3	20	
Chromium	50.0	52.8		mg/Kg		106	80 - 120	3	20	
Cobalt	50.0	55.1		mg/Kg		110	80 - 120	2	20	
Copper	50.0	52.9		mg/Kg		106	80 - 120	2	20	
Lead	50.0	54.8		mg/Kg		110	80 - 120	2	20	
Molybdenum	50.0	53.9		mg/Kg		108	80 - 120	2	20	
Nickel	50.0	53.7		mg/Kg		107	80 - 120	3	20	
Selenium	50.0	52.0		mg/Kg		104	80 - 120	3	20	
Silver	25.0	25.4		mg/Kg		102	80 - 120	3	20	
Thallium	50.0	54.2		mg/Kg		108	80 - 120	2	20	
Vanadium	50.0	53.6		mg/Kg		107	80 - 120	3	20	
Zinc	50.0	54.1		mg/Kg		108	80 - 120	3	20	

Lab Sample ID: LCSSRM 720-114851/25-A

Matrix: Solid

Analysis Batch: 114954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114851

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Antimony	51.4	21.9		mg/Kg		43	11 - 101			
Arsenic	136	128		mg/Kg		94	69 - 119			
Barium	549	511		mg/Kg		93	61 - 117			
Beryllium	251	240		mg/Kg		96	56 - 102			
Cadmium	87.9	87.3		mg/Kg		99	67 - 118			
Chromium	135	128		mg/Kg		95	67 - 121			
Cobalt	218	214		mg/Kg		98	64 - 133			
Copper	134	130		mg/Kg		97	68 - 126			
Lead	340	321		mg/Kg		94	62 - 113			
Molybdenum	51.5	47.8		mg/Kg		93	62 - 128			
Nickel	288	280		mg/Kg		97	65 - 117			
Selenium	203	189		mg/Kg		93	63 - 126			
Silver	47.0	46.8		mg/Kg		100	51 - 130			
Thallium	44.7	37.9		mg/Kg		85	64 - 124			
Vanadium	148	139		mg/Kg		94	67 - 123			
Zinc	433	420		mg/Kg		97	62 - 110			

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-114901/1-A

Matrix: Solid

Analysis Batch: 115076

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114901

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.010		mg/Kg		06/06/12 12:11	06/08/12 13:18	1

QC Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 720-114901/2-A

Matrix: Solid

Analysis Batch: 115076

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.908		mg/Kg		109	80 - 120

Lab Sample ID: LCSD 720-114901/3-A

Matrix: Solid

Analysis Batch: 115076

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114901

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.917		mg/Kg		110	80 - 120	1	20

Method: Moisture - Percent Moisture

Lab Sample ID: 720-42465-5 DU

Matrix: Solid

Analysis Batch: 114742

Client Sample ID: AA-SS-01 A,B,C,D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	7.3		6.9		%		7	20

Lab Sample ID: 720-42465-1 DU

Matrix: Solid

Analysis Batch: 114789

Client Sample ID: AA-SS-01 (1.5)-A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	11		11		%		3	20

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

GC/MS VOA

Analysis Batch: 114735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-1	AA-SS-01 (1.5)-A	Total/NA	Solid	8260B	114737
LCS 720-114737/2-A	Lab Control Sample	Total/NA	Solid	8260B	114737
LCS 720-114737/4-A	Lab Control Sample	Total/NA	Solid	8260B	114737
LCSD 720-114737/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114737
LCSD 720-114737/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114737
MB 720-114737/1-A	Method Blank	Total/NA	Solid	8260B	114737

Prep Batch: 114737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-1	AA-SS-01 (1.5)-A	Total/NA	Solid	5035	
LCS 720-114737/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114737/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114737/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114737/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114737/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 114762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-6	BR-SS-01 (2.0)-A	Total/NA	Solid	8260B	114779
720-42465-11	BR-SS-02 (0.5)-A	Total/NA	Solid	8260B	114779
720-42465-16	RR-SP-01 (0.5)-A	Total/NA	Solid	8260B	114779
720-42465-21	DW-WC-01-A	Total/NA	Solid	8260B	114779
720-42465-26	RR-SP-02 (0.5)-A	Total/NA	Solid	8260B	114779
720-42465-31	RR-SP-01 (0.5)-A	Total/NA	Solid	8260B	114779
LCS 720-114779/2-A	Lab Control Sample	Total/NA	Solid	8260B	114779
LCS 720-114779/4-A	Lab Control Sample	Total/NA	Solid	8260B	114779
LCSD 720-114779/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114779
LCSD 720-114779/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	114779
MB 720-114779/1-A	Method Blank	Total/NA	Solid	8260B	114779

Prep Batch: 114779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-6	BR-SS-01 (2.0)-A	Total/NA	Solid	5035	
720-42465-11	BR-SS-02 (0.5)-A	Total/NA	Solid	5035	
720-42465-16	RR-SP-01 (0.5)-A	Total/NA	Solid	5035	
720-42465-21	DW-WC-01-A	Total/NA	Solid	5035	
720-42465-26	RR-SP-02 (0.5)-A	Total/NA	Solid	5035	
720-42465-31	RR-SP-01 (0.5)-A	Total/NA	Solid	5035	
LCS 720-114779/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 720-114779/4-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-114779/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 720-114779/5-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-114779/1-A	Method Blank	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 114830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-5 MS	AA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-5 MSD	AA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-10	BR-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

GC Semi VOA (Continued)

Prep Batch: 114830 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-15	BR-SS-02 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-20	RR-SP-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-25	DW-WC-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-30	RR-SP-02 A,B,C,D	Silica Gel Cleanup	Solid	3546	
720-42465-35	RR-SP-01 A,B,C,D	Silica Gel Cleanup	Solid	3546	
LCS 720-114830/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-114830/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-114830/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 114957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-5 MS	AA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-5 MSD	AA-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-10	BR-SS-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-15	BR-SS-02 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-20	RR-SP-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-25	DW-WC-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-30	RR-SP-02 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
720-42465-35	RR-SP-01 A,B,C,D	Silica Gel Cleanup	Solid	8015B	114830
LCS 720-114830/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	114830
LCSD 720-114830/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	114830
MB 720-114830/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	114830

Metals

Prep Batch: 114851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Total/NA	Solid	3050B	
720-42465-10	BR-SS-01 A,B,C,D	Total/NA	Solid	3050B	
720-42465-15	BR-SS-02 A,B,C,D	Total/NA	Solid	3050B	
720-42465-20	RR-SP-01 A,B,C,D	Total/NA	Solid	3050B	
720-42465-25	DW-WC-01 A,B,C,D	Total/NA	Solid	3050B	
720-42465-30	RR-SP-02 A,B,C,D	Total/NA	Solid	3050B	
720-42465-35	RR-SP-01 A,B,C,D	Total/NA	Solid	3050B	
LCS 720-114851/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-114851/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-114851/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-114851/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 114901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Total/NA	Solid	7471A	
720-42465-10	BR-SS-01 A,B,C,D	Total/NA	Solid	7471A	
720-42465-15	BR-SS-02 A,B,C,D	Total/NA	Solid	7471A	
720-42465-20	RR-SP-01 A,B,C,D	Total/NA	Solid	7471A	
720-42465-25	DW-WC-01 A,B,C,D	Total/NA	Solid	7471A	
720-42465-30	RR-SP-02 A,B,C,D	Total/NA	Solid	7471A	
720-42465-35	RR-SP-01 A,B,C,D	Total/NA	Solid	7471A	
LCS 720-114901/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-114901/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-114901/1-A	Method Blank	Total/NA	Solid	7471A	

QC Association Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Metals (Continued)

Analysis Batch: 114954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Total/NA	Solid	6010B	114851
720-42465-10	BR-SS-01 A,B,C,D	Total/NA	Solid	6010B	114851
720-42465-15	BR-SS-02 A,B,C,D	Total/NA	Solid	6010B	114851
720-42465-20	RR-SP-01 A,B,C,D	Total/NA	Solid	6010B	114851
720-42465-25	DW-WC-01 A,B,C,D	Total/NA	Solid	6010B	114851
720-42465-30	RR-SP-02 A,B,C,D	Total/NA	Solid	6010B	114851
720-42465-35	RR-SP-01 A,B,C,D	Total/NA	Solid	6010B	114851
LCS 720-114851/2-A	Lab Control Sample	Total/NA	Solid	6010B	114851
LCSD 720-114851/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	114851
LCSSRM 720-114851/25-A	Lab Control Sample	Total/NA	Solid	6010B	114851
MB 720-114851/1-A	Method Blank	Total/NA	Solid	6010B	114851

Analysis Batch: 115076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Total/NA	Solid	7471A	114901
720-42465-10	BR-SS-01 A,B,C,D	Total/NA	Solid	7471A	114901
720-42465-15	BR-SS-02 A,B,C,D	Total/NA	Solid	7471A	114901
720-42465-20	RR-SP-01 A,B,C,D	Total/NA	Solid	7471A	114901
720-42465-25	DW-WC-01 A,B,C,D	Total/NA	Solid	7471A	114901
720-42465-30	RR-SP-02 A,B,C,D	Total/NA	Solid	7471A	114901
720-42465-35	RR-SP-01 A,B,C,D	Total/NA	Solid	7471A	114901
LCS 720-114901/2-A	Lab Control Sample	Total/NA	Solid	7471A	114901
LCSD 720-114901/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	114901
MB 720-114901/1-A	Method Blank	Total/NA	Solid	7471A	114901

General Chemistry

Analysis Batch: 114742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-5	AA-SS-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42465-5 DU	AA-SS-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42465-10	BR-SS-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42465-15	BR-SS-02 A,B,C,D	Total/NA	Solid	Moisture	

Analysis Batch: 114789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42465-1	AA-SS-01 (1.5)-A	Total/NA	Solid	Moisture	
720-42465-1 DU	AA-SS-01 (1.5)-A	Total/NA	Solid	Moisture	
720-42465-6	BR-SS-01 (2.0)-A	Total/NA	Solid	Moisture	
720-42465-11	BR-SS-02 (0.5)-A	Total/NA	Solid	Moisture	
720-42465-16	RR-SP-01 (0.5)-A	Total/NA	Solid	Moisture	
720-42465-20	RR-SP-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42465-21	DW-WC-01-A	Total/NA	Solid	Moisture	
720-42465-25	DW-WC-01 A,B,C,D	Total/NA	Solid	Moisture	
720-42465-26	RR-SP-02 (0.5)-A	Total/NA	Solid	Moisture	
720-42465-30	RR-SP-02 A,B,C,D	Total/NA	Solid	Moisture	
720-42465-31	RR-SP-01 (0.5)-A	Total/NA	Solid	Moisture	
720-42465-35	RR-SP-01 A,B,C,D	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: AA-SS-01 (1.5)-A

Lab Sample ID: 720-42465-1

Date Collected: 05/31/12 08:00

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114737	06/01/12 19:30	DH	TAL SF
Total/NA	Analysis	8260B		1	114735	06/04/12 12:32	YB	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: AA-SS-01 A,B,C,D

Lab Sample ID: 720-42465-5

Date Collected: 05/31/12 08:00

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114957	06/07/12 15:56	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:06	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:06	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114742	06/04/12 10:49	MJK	TAL SF

Client Sample ID: BR-SS-01 (2.0)-A

Lab Sample ID: 720-42465-6

Date Collected: 05/31/12 09:11

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114779	06/01/12 19:30	LL	TAL SF
Total/NA	Analysis	8260B		1	114762	06/04/12 19:54	AC	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: BR-SS-01 A,B,C,D

Lab Sample ID: 720-42465-10

Date Collected: 05/31/12 09:11

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114957	06/07/12 16:20	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:10	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:09	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114742	06/04/12 10:49	MJK	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: BR-SS-02 (0.5)-A

Lab Sample ID: 720-42465-11

Date Collected: 05/31/12 10:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114779	06/01/12 19:30	LL	TAL SF
Total/NA	Analysis	8260B		1	114762	06/04/12 20:23	AC	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: BR-SS-02 A,B,C,D

Lab Sample ID: 720-42465-15

Date Collected: 05/31/12 10:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114957	06/07/12 17:11	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:15	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:12	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114742	06/04/12 10:49	MJK	TAL SF

Client Sample ID: RR-SP-01 (0.5)-A

Lab Sample ID: 720-42465-16

Date Collected: 05/31/12 11:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114779	06/01/12 19:30	LL	TAL SF
Total/NA	Analysis	8260B		1	114762	06/04/12 20:52	AC	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: RR-SP-01 A,B,C,D

Lab Sample ID: 720-42465-20

Date Collected: 05/31/12 11:20

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		2	114957	06/07/12 17:36	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:19	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:16	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: DW-WC-01-A

Lab Sample ID: 720-42465-21

Date Collected: 05/31/12 12:45

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114779	06/01/12 19:30	LL	TAL SF
Total/NA	Analysis	8260B		1	114762	06/04/12 21:20	AC	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: DW-WC-01 A,B,C,D

Lab Sample ID: 720-42465-25

Date Collected: 05/31/12 12:45

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		2	114957	06/07/12 18:00	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:23	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:18	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: RR-SP-02 (0.5)-A

Lab Sample ID: 720-42465-26

Date Collected: 05/31/12 13:55

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 97.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114779	06/01/12 19:30	LL	TAL SF
Total/NA	Analysis	8260B		1	114762	06/04/12 21:49	AC	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: RR-SP-02 A,B,C,D

Lab Sample ID: 720-42465-30

Date Collected: 05/31/12 13:35

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		2	114957	06/07/12 18:24	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:28	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:21	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Client Sample ID: RR-SP-01 (0.5)-A

Lab Sample ID: 720-42465-31

Date Collected: 05/31/12 13:40

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			114779	06/01/12 19:30	LL	TAL SF
Total/NA	Analysis	8260B		1	114762	06/04/12 22:18	AC	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Client Sample ID: RR-SP-01 A,B,C,D

Lab Sample ID: 720-42465-35

Date Collected: 05/31/12 13:40

Matrix: Solid

Date Received: 06/01/12 15:30

Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			114830	06/05/12 14:31	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	114957	06/07/12 19:13	EC	TAL SF
Total/NA	Prep	3050B			114851	06/05/12 16:06	ASB	TAL SF
Total/NA	Analysis	6010B		4	114954	06/06/12 23:32	BA	TAL SF
Total/NA	Prep	7471A			114901	06/06/12 12:11	ND	TAL SF
Total/NA	Analysis	7471A		1	115076	06/08/12 14:23	EFH	TAL SF
Total/NA	Analysis	Moisture		1	114789	06/04/12 21:13	EYT	TAL SF

Laboratory References:

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

Certification Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pleasanton	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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

Method Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marín Headlands

TestAmerica Job ID: 720-42465-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
6010B	Metals (ICP)	SW846	TAL SF
7471A	Mercury (CVAA)	SW846	TAL SF
Moisture	Percent Moisture	EPA	TAL SF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Sample Summary

Client: Engineering Remediation Resources Group.
Project/Site: Bunker Rd-Marine Headlands

TestAmerica Job ID: 720-42465-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-42465-1	AA-SS-01 (1.5)-A	Solid	05/31/12 08:00	06/01/12 15:30
720-42465-5	AA-SS-01 A,B,C,D	Solid	05/31/12 08:00	06/01/12 15:30
720-42465-6	BR-SS-01 (2.0)-A	Solid	05/31/12 09:11	06/01/12 15:30
720-42465-10	BR-SS-01 A,B,C,D	Solid	05/31/12 09:11	06/01/12 15:30
720-42465-11	BR-SS-02 (0.5)-A	Solid	05/31/12 10:20	06/01/12 15:30
720-42465-15	BR-SS-02 A,B,C,D	Solid	05/31/12 10:20	06/01/12 15:30
720-42465-16	RR-SP-01 (0.5)-A	Solid	05/31/12 11:20	06/01/12 15:30
720-42465-20	RR-SP-01 A,B,C,D	Solid	05/31/12 11:20	06/01/12 15:30
720-42465-21	DW-WC-01-A	Solid	05/31/12 12:45	06/01/12 15:30
720-42465-25	DW-WC-01 A,B,C,D	Solid	05/31/12 12:45	06/01/12 15:30
720-42465-26	RR-SP-02 (0.5)-A	Solid	05/31/12 13:55	06/01/12 15:30
720-42465-30	RR-SP-02 A,B,C,D	Solid	05/31/12 13:35	06/01/12 15:30
720-42465-31	RR-SP-01 (0.5)-A	Solid	05/31/12 13:40	06/01/12 15:30
720-42465-35	RR-SP-01 A,B,C,D	Solid	05/31/12 13:40	06/01/12 15:30



Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42465

Lab No. Test America
 Address Headland

138635

Project Contact (Hardcopy or PDF To):		California EDF Report?		Navy EDD Report?		Electronic Deliverables To (Email Address):		Chain-of-Custody Record and Analysis Request	
T. Angus		Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>		tiffany.angus@errg.com		Analysis Request	
Laboratory:		Sampler:		Project Address:		12 hr / 24 hr / 48 hr / 72 hr (STANDARD) TAT		Comments	
Test America		D. Johnson & P. Bratton		Marin Headlands		X		For Lab Use Only	
Phone No.: 415-330-7658		Phase # / Task #		Sampling		Container		Matrix	
Project Number: 2012-031		Date		Date		Time		Soil	
Project Name: Bunker Rd		Time		Time		Time		Water	
Project Manager: T. Angus		Time		Time		Time		Time	
Sample Designation		Time		Time		Time		Time	
AA-SS-01(1.5)-A	5/31/12 0800	1	3	0815					01
AA-SS-01(2.0)-B	5/31/12 0800	1	3	0815					02
AA-SS-01(1.0)-C	5/31/12 0830								03
AA-SS-01(0.5)-D	5/31/12 0840								04
BA-SS-01(2.0)-A	6/1/12 0911								06
BA-SS-01(0.5)-B	6/1/12 1010								07
BA-SS-01(1.0)-C	6/1/12 0935								08
BA-SS-01(0.5)-D	6/1/12 1000								09
BA-SS-01(0.5)-A	6/1/12 1020								10
BA-SS-02(0.5)-B	6/1/12 1048								11
BA-SS-02(0.5)-C	6/1/12 1155								12
BA-SS-02(0.5)-D	6/1/12 1530								13
BA-SS-02(0.5)-A	6/1/12 1530								14
BA-SS-02(0.5)-B	6/1/12 1530								15

Remarks:

Composite A, B, C, & D for
 CAM 17 + TPH MNO, 1120
 silica gel cleanup, dry weight

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553

1.4%



Engineering / Remediation Resources Group, Inc.
 115 Sansome St., Suite 200
 San Francisco, CA 94104
 Phone: (415) 395-9974
 Fax: (415) 395-9983

720-42465

Lab No. Test Agency
 Address pleasenton CA

Page 2 of 3
138635

Project Contact (Hardcopy or PDF To):		California EDF Report?		No		Yes		No		Yes		No	
Laboratory:		Navy EDD Report?		Electronic Deliverables To (Email Address):		Sampler:		Project Address:		Analysis Request		Chain-of-Custody Record and Analysis Request	
T. Angus				t.angus@errc.com		S. Johnson & P. Bratton		Marin Headlands		TPH-MMO, DCO		12 hr / 24 hr / 48 hr / 72 hr (MSTD) (1 wk) TAT	
Laboratory:		Date		Time		Container		Matrix		Number of Containers		Comments	
Test America		Date		Time		Container		Matrix		Number of Containers		Comments	
Phone No.:		Date		Time		Container		Matrix		Number of Containers		Comments	
415-730-7658		5/31/03		1055		3							
Project Number:		Date		Time		Container		Matrix		Number of Containers		Comments	
2012-031		1100											
Project Name:		Date		Time		Container		Matrix		Number of Containers		Comments	
Bunker Rd		1120											
Project Manager:		Date		Time		Container		Matrix		Number of Containers		Comments	
T. Angus		1135											
Sample Designation		Date		Time		Container		Matrix		Number of Containers		Comments	
BQ-SS-02(1.0)-C		1145											
BQ-SS-02(1.0)-D		1130											
BQ-SS-01(0.5)-A		1245											
BQ-SS-01(0.5)-B		1305											
BQ-SS-01(0.5)-C		1317											
BQ-SS-01(0.5)-D													
DW-WC-01-A													
DW-WC-01-B													
DW-WC-01-C													
Relinquished by:		Date		Time		Received by:		Time		Number of Containers		Comments	
		6/1/03		1155		S. Johnson		1530					
Relinquished by:		Date		Time		Received by:		Time		Number of Containers		Comments	
		6/1/03		1530		S. Johnson		1530					
Relinquished by:		Date		Time		Received by Laboratory:		Time		Number of Containers		Comments	
		6/1/03		1530		S. Johnson		1530					

Remarks:
 Composite A, B, C + D for CAM 17
 TPH-MMO, DCO silica gel cleaning
 dry weight

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553





Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553
 Phone: (925) 969-0750
 Fax: (925) 969-0751

720-42465

Lab No: Test America
 Address: _____

Page 3 of 3

138635

Project Contact (Hardcopy or PDF To):
 T. Angus
 Laboratory:
 Test America
 Phone No.: 415.730.7658
 Project Number: 2012-031
 Project Name: Bunker Rd Soil Sampling
 Project Address: Bunker Road

California EDF Report? Yes No
 Navy EDD Report? Yes No
 Electronic Deliverables To (Email Address):
 tiffany.angus@erfg.com
 Sampler: T. Bennet and C. Walker

Sample Designation	Date	Time	Sampling		Container		Matrix	
			Depth	Volume	Material	Volume	Soil	Water
DN-WC-01-D	5/12	1430	1	1	200g	1	X	X
DN-SP-02(0.5)-A	1355	1	3	3		X	X	X
DN-SP-02(0.5)-B	1348	1	1	1		X	X	X
DN-SP-02(0.5)-C	1340	1	1	1		X	X	X
DN-SP-02(0.5)-D	1335	1	1	1		X	X	X
DN-SP-02(0.5)-A	1120	1	3	3		X	X	X
DN-SP-01(0.5)-B	1135	1	1	1		X	X	X
DN-SP-01(0.5)-C	1145	1	1	1		X	X	X
DN-SP-01(0.5)-D	1130	1	1	1		X	X	X

Relinquished by: _____ Date: 6/1/12 Time Received by: SSS Time: 1155
 Relinquished by: _____ Date: 6/1/12 Time Received by: _____ Time: 1530
 Relinquished by: _____ Date: 6/1/12 Time Received by: J. B. Beck Time: 1530

Analysis Request	Chain-of-Custody Record and Analysis Request	Number of Containers	Comments	For Lab Use Only
				24
				25
				26
				27
				28
				29
				30
				31
				32
				33
				34
				35

Remarks:
 Composite A, B, C, & D
 for TPH MNO, DLO & CAM 17
 silica gel cleanup, dry weight

Bill to: Engineering / Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, CA 94553



Login Sample Receipt Checklist

Client: Engineering Remediation Resources Group.

Job Number: 720-42465-1

Login Number: 42465

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

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