MEMORANDUM

Date:	August 23, 2016
To:	Ms. Suzanne Wilson, Senior Planner - Trails EBRPD
From:	Mr. Brett Bardsley, P.G. and Mr. Michael Leacox, C.E.G.
Subject:	Phase II Environmental Site Assessment (ESA) Findings Memorandum – San Francisco Bay Trail at Point Molate

INTRODUCTION

NCE, on behalf of the East Bay Regional Park District (EBRPD), conducted a Phase II Environmental Site Assessment (ESA) at the San Francisco Bay Trail at Point Molate Project (herein identified as the Project or Bay Trail) located in the City of Richmond (City), Contra Costa County, California (Figure 1). The primary objective of the Project is to construct a 10-foot wide, asphalt-paved multi-use, non-vehicular trail with two foot shoulders adjacent to or within a former railroad alignment located north of the Richmond-San Rafael Bridge on the eastern shore of the San Francisco Bay (Bay). Figures 2 and 3, as well as Plan Sheets F1 through F5 (Attachment A), illustrate the proposed Project layout. In addition, the approximate location of the former railroad alignment is also illustrated on the Plan Sheets.

The Phase II ESA was conducted based on the results of an initial hazardous waste assessment (herein identified as the Phase I; NCE, 2016), which is discussed in more detail in the next section. The Phase I identified the presence of several concerns including the potential for impacted soils to be present along the former railroad corridor from historical railroad activities and the presence of dilapidated structures and hazardous building materials (HBMs) to be present on these structures and on the ground. Based on this information, the Phase I recommended that the Site undergo a Phase II ESA.

The primary objective of the Phase II ESA is to assess whether there are railroad-related chemicals of concern (COCs) within the Project limits, and, if present, to use the Phase II findings to support the planning and design stages including the development of mitigation measures. The Phase II ESA also included an evaluation of whether scattered building shingles lying on the ground within or near an area at the Site identified as "IR Site 4 (Drum Lot 1)" contained asbestos containing material (ACMs). The Phase II ESA did not include an evaluation of HBMs on the dilapidated structures and surrounding soil because it is anticipated that fences will be constructed around these structures as part of the Project design to eliminate future user exposure.

Scope of Work

The Phase II ESA was conducted in a phased approach to allow for the development of subsequent sampling efforts based on the results obtained from an initial investigation, which was conducted on March 8 through March 10, 2016. The primary objective was to

assess the potential presence of railroad-related COCs within the Project limits. The field activities included utility locating, collecting shallow soil samples approximately every 300 feet along the proposed Bay Trail alignment, and submitting the samples for total arsenic and lead analysis.

On May 30 and June 1, 2016, a supplemental investigation was performed to provide lateral assessment of arsenic in shallow soil and to aid in developing mitigation alternatives and project-specific risk management approaches. The field activities included utility locating, collecting step-out samples on one or both sides of the initial sample locations or collecting additional samples along the proposed Bay Trail alignment. All of the samples were submitted to an analytical laboratory for arsenic analysis and five of the samples for polynuclear aromatic hydrocarbon (PAH) analysis. In addition, samples were also collected from the building shingles that are lying on the ground within the Project limits at IR Site 4 (Drum Lot 1) and tested for the presence of asbestos.

BACKGROUND

Project Location

The Project is located in the Potrero Hills of Point San Pablo Peninsula, northwest of the City in Contra costa County, California (Plate 1). The Project is located on the east side of the Bay and generally bordered by undeveloped land to the north, by the Chevron Richmond refinery to the east, and by the Richmond-San Rafael Bridge to the south.

Project Background

The proposed Project will be approximately 2.5-miles and extend north along the shoreline, through Chevron Corporation (Chevron) property, to the Point Molate Beach Park and Former Naval Fuel Depot (NFD) property, owned and managed by the City. The Bay Trail will give the public access to the shoreline and the ability to connect to the park via foot or bicycle.

The Project is divided into two segments, Segment A and Segment B, as described below:

- Segment A (Figure 2) will be constructed within a 20-foot wide surface easement through Chevron property, which stretches from Stenmark Drive on the north side of the Richmond-San Rafael Bridge (I-580), north to the southern extent of Chevron's boundary at Point Molate Beach Park (Figure 2). Segment A will be approximately 1-mile long, 10-feet wide with 2-foot shoulders on each side. Segment A will be operated and maintained by EBRPD.

- Segment B (Figure 3) will be constructed on City property and continue north from the northern extent of Segment A through Point Molate Beach Park, the Winehaven Historic District, to the northern extent of Chevron's boundary. Segment B will be approximately 1.5 miles long, 10 feet wide with 2 foot shoulders on each side. Segment B will be operated and maintained by the City.

In 2009, the EBRPD entered into an agreement for the donation of the Segment A surface easement for the San Francisco Bay Trail that follows the former Richmond Beltline Railroad/Castro Point Railway corridor along the shoreline of their southernmost property on the San Pablo Peninsula. In 2013 and 2014, EBRPD hired NCE to conduct an alignment study for a Class I bike path to be constructed generally adjacent to or on top of the former railroad alignment and, as a result, recorded the trail easement.

Recently, the Bay Area Toll Authority (BATA) approved the installation of a multi-use recreational trail along the shoreline from the Richmond – San Rafael Bridge to Marine Street, near Point Richmond, which would connect to the EBRPD's surface easement at Stenmark Drive. The combined projects will connect trail users from both the City and the City of Marin to San Pablo Peninsula.

Phase I

In March and April, 2016, NCE performed on behalf of the EBRPD, the Phase I, the findings of which are summarized in NCE's April 20, 2016 memorandum entitled *Hazardous Waste Memorandum – San Francisco Bay Trail at Point Molate*. The purpose of this Phase I was to identify the presence or likely presence of potential environmental concerns (PECs) in connection with the Project so that mitigation measures and/or engineering controls can be implemented such that unacceptable risk, if present, is minimized to construction workers and future site users during and/or after construction of the Project.

Because only the near surface soils (between ground surface and 2-feet below the ground surface [bgs]) are expected to be disturbed and direct contact with groundwater is not anticipated during construction, the Phase I did not include an evaluation of deeper soils and/or groundwater conditions beneath and/or adjacent to the Project. In addition, vapor intrusion to indoor air from the migration of volatile chemicals in the subsurface was also not evaluated because the Project is not expected to include the construction of buildings.

Activities to identify PECs in connection with the Project included a records review of available historical documents; standard historical sources including aerial photographs, fire insurance maps, property tax files, and recorded land title records, United States Geological Survey (USGS) topographic maps, and Local Street Directories; and environmental regulatory records, a site reconnaissance of the Project and adjacent parcels, and interviews. These activities were generally performed using ASTM International (ASTM) 1527-13 methodology and consistent with the United States Environmental Protection Agency (EPA) All Appropriate Inquiries (AAI) rule.

The assessment revealed the following PECs in connection with the Project:

- **Potential for impacted soils to be present along the former railroad corridor from historical railroad activities.** There is a potential for the presence of elevated arsenic and lead related to herbicide applications and PAHs as a result of the combustion of fossil fuel products to be present in shallow soils.

- **Potential for HBMs to be present on the nearby structures and on the ground.** Based on the age of the buildings, the potential exists for the presence of

HBMs to be present on the nearby structures and in the soil near those structures. The concerns include:

- Many of the nearby structures appear to be in a state of disrepair. These structures could attract users of the Bay Trail, and, as a result, could pose an unacceptable risk.

- The presence of lead in soil originating from lead based paints (LBPs) and coatings used on exterior building surfaces that may have since flaked or oxidized and deposited into surrounding soils.

- On February 1, 2016, roofing shingles that appear to contain asbestos were observed by NCE during a site reconnaissance to be scattered on the ground in the western portion of IR Site 4 (Drum Lot 1). Disturbance of ACMs can generate airborne asbestos fibers. In addition, portions of the aboveground petroleum pipeline in the southern portion of Segment B may contain asbestos coating materials, as well as the underground piping that was abandoned in place at Segment B (Tetra Tech, 2003a).

COCs related to the NFD were not included as PECs in connection with the Project, based on the following:

- Findings of s 2003 Human Health and Ecological Risk Assessment (HHERA) and 2005 risk assessment concluded that there are no unacceptable risks to potential humans (including current groundskeeper, future park maintenance worker, and future recreational user exposure scenarios) or ecological receptors from exposure to the contaminants at the North Shoreline Area, IR Site 4 (Drum Lot 1), and the South Shoreline Area including the area in the vicinity of Building 87 (Tetra Tech, 2003b; Tetra Tech and Sullivan Consultant Group, 2005).

- According to Mr. William Carson, president and principal engineer of Terraphase Engineering, Inc. (Terraphase) and the City's NFD environmental consultant, a remedial excavation was recently completed at IR Site 3 (Former Treatment Ponds). With the exception of potential contamination that may have been left in place adjacent to the rip rap near the Bay and beneath Building 6 to the east, the upper five feet at IR Site 3 (Former Treatment Ponds) contains materials appropriate for residential land uses.

Based on the findings noted above, NCE recommended that the Phase II investigation be performed to provide baseline near surface soil conditions (between the ground surface and two feet bgs) along the proposed Project alignment to support the planning and design stages. Details of the Phase II investigation are discussed in the next sections.

FIELD INVESTIGATION

This section describes the Phase II ESA field activities that were conducted and identifies the laboratory analyses performed on the collected samples. The soil sample locations and the approximate location of the former railroad alignment are shown on the plan sheets included as Attachment A. The initial phase included sampling along the proposed trail

alignment to look for the presence of COCs. The second phase included collecting samples in cross-section of the areas identified as concerns during the initial phase. The cross-section testing was intended to support design and a human health risk assessment (HHRA).

Pre-Field Activities

Prior to initiating intrusive work, the following activities were performed:

- Prepared a site specific health and safety plan (HASP) for the field activities in accordance with Part 1910.120 of Title 29 of the Code of Federal Regulations (CFR) and the California Code of Regulations Title 8, Section 5192.

- Contracted and scheduled subcontractors to perform the soil boring installation activities.

- Contacted Underground Service Alert North (USAN) at least two business days prior to conducting any intrusive work to locate and mark the subsurface utilities in the immediate vicinity of the Site. The USAN ticket number associated with the investigation was 0108837.

- Retained a private underground utility locating service to perform underground utility clearance at the proposed boring locations. Advanced Geological Services (AGS) of Moraga, California, performed the utility locating on March 7 and May 31, 2016.

Boring installation and Soil Sampling

The Phase II ESA included the advancement of 82 soil borings as described below:

- On March 8 through March 10, 2016, a total of 34 soil borings (B-1 through B-36) were advanced to depths ranging from one to two feet below the ground surface (bgs) along the proposed Bay Trail alignment by California Geotech Service, LLC of Livermore, California, using a truck-mounted hollow stem drilling rig or limited access drill equipment. Up to two discrete soil samples were collected from each boring using split spoon samples at depths ranging from ground surface to 0.5-feet bgs and 1.5- and 2-feet bgs. The reason that the lower sample at some locations was not collected was due to drilling refusal on the hard bedrock.

- On March 30 and June 1, 2016, a total of 48 soil borings were advanced to depths of approximately two feet bgs along the proposed Bay Trail alignment and at step out locations adjacent to the initial investigation sample locations by Confluence Environmental, Inc. (Confluence) of Sacramento, California, using direct push drilling methods. Using the direct push method, continuous soil cores were collected using a small, 2-inch diameter, 4-foot long, stainless steel sampler, equipped with a disposable plastic liner. The sampler was hydraulically driven through the interval to be sampled and withdrawn from the soil boring. The liner with the soil sample was then removed and discrete soil samples were collected from the recovered soil core for potential laboratory chemical analysis. Two discrete samples were collected from

each boring at depths ranging from approximately 0.5- to 1-foot and 1.5 to 2-feet bgs.

During drilling, a NCE geologist described the soil conditions encountered during advancement of each boring in accordance with the USCS (American Society for Testing and Materials [ASTM] D2488-84). The NCE geologist also recorded field observations on boring logs, which are included as Attachment B.

Soil samples collected during the Phase II ESA were submitted under chain-of-custody procedures to Excelchem Environmental Labs (Excelchem) of Rocklin, California, a state certified analytical laboratory, for one or more of the following analyses:

- Arsenic and lead by United States Environmental Protection Agency (EPA) Method 6010B; and
- Polynuclear aromatic hydrocarbons by EPA Method 8270C-Selective Ion Monitoring (SIM).

After completion of drilling activities, each borehole was backfilled with native materials and the surface was repaired with soil or asphalt patch to match the surrounding surface.

Asbestos Sampling

On July 20, 2016, Forensic analytical Consulting Services (FACs), a California licensed asbestos contractor of Citrus Heights, California, collected three samples of the roofing shingles that were lying on the ground in the western portion of IR Site 4 (Drum Lot 1). These samples were submitted under chain-of-custody procedures to Forensic Analytical Laboratories in Hayward, California, for asbestos analysis.

FINDINGS

This section presents a summary of the analytical results for the soil samples collected within the Project limits to date. The sample locations and the arsenic and lead analytical results are shown on the plan sets included as Attachment A. The laboratory chemical results of the soil and groundwater analyses are tabulated in Tables 1 and 2. The completed soil sample analytical reports and chain-of-custody documents are included as Attachment C. The completed asbestos analytical report and chain-of-custody documents are included as Attachment D.

Evaluation Criteria

Published screening values were used to assess if COCs are present within the Project limits at concentrations that are of concern. The California Department of Toxic Substances Control's (DTSC's, 2009) guidance for evaluation of hazardous substance release sites recommends the use of the DTSC Modified Screening Levels (DTSC-SLs) by the DTSC Human and Ecological Risk Office (HERO) as comparators and the Regional Screening Levels (RSLs) developed by the EPA when DTSC-SLs have not been developed. RSLs are human-health-risk-based soil, air, or water concentrations developed for about 750 chemicals using toxicity criteria established or agreed upon by the EPA and assuming residential land and commercial/ industrial land uses. Accordingly, the DTSC-SLs and EPA RSLs for residential

and commercial/industrial land uses were used as the screening values to compare the analytical data of the samples collected during the Phase II ESA. The data was also compared to applicable California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs) for residential and commercial/industrial soil because the Project is located within the San Francisco Bay Region.

In addition, because arsenic is often naturally present in California soils at concentrations greater than the applicable regulatory screening values, NCE created a normality plot (Attachment E) as recommended by DTSC (2009). Review of the normality plot suggests that soils containing arsenic concentrations up to 8 milligrams per kilogram (mg/kg) may be considered within the range of naturally occurring background levels.

Soil Sample Analytical Results

Review of the analytical results (see attached Table 1) indicates the following:

- Arsenic was reported[1] in the 149 samples at concentrations ranging from 1.6 milligrams per kilogram (mg/kg) in the 1.5-foot sample collected from boring B-33B to 43.3 mg/kg in the sample collected from boring B-39A from ground surface to approximately 0.5-feet bgs. These concentrations exceed the DTSC-SLs for residential and commercial/industrial soils of 0.067 and 0.25 mg/kg, respectively. In addition, a total of 31 samples contained concentrations greater than 8 mg/kg, the estimated upper limit of naturally occurring background levels.

- Lead was reported in 42 samples at concentrations ranging from less than 1 mg/kg in the 0.5-foot sample from boring B-19 to 527 mg/kg in the 0.5-foot sample from boring B-5. None of the reported concentrations exceeded the applicable lead DTSC-SL for residential land uses of 80 mg/kg except the concentration reported in the 0.5-foot sample from boring B-5. Lead was reported in the 1.5-foot sample from that boring at a concentration of 9.0 mg/kg, which suggests that the elevated lead may be limited in extent.

- PAHs were reported in 2 of the 5 samples analyzed for PAHs. Only the reported benzo(a)pyrene concentration reported in the sample collected from boring B-42B from ground surface to approximately 0.5-feet bgs in the sample exceeded the applicable EPA RSL for commercial/industrial land uses.

The quality of the chemical data reported by Excelchem was assessed from the results of the internal laboratory spikes and method blanks. The internal laboratory spikes and surrogate recoveries for methods blanks were within recovery limits and samples were analyzed with acceptable holding times. Based on this review of the associated analytical reports, the analytical data provided by Excelchem were consistent with industry standards for laboratories.

[1] Reported means that the analyte concentration exceeded the laboratory reporting limit.

Asbestos Analytical Results

Review of the analytical report indicates that two layers were identified: Grey Roof Shingle and Black Tar. Review of the analytical results indicates that asbestos was not detected in the roofing shingle samples.

GENERAL DISCUSSION

This section presents a general discussion of the analytical results presented above. The sample locations are presented on the plan sheets (Attachment A). Generally, the findings of the Phase II ESA indicate the following:

- Arsenic concentrations above expected background concentrations were reported in 31 of the 149 samples analyzed for arsenic. These 31 samples were collected at locations that were coincident with the former railroad corridor. Based on this information, the elevated arsenic is most likely related to the former railroad activities. Accordingly, it is also likely that elevated concentrations of arsenic are present within the former railroad corridor located outside of the Bay Trail footprint.

- Elevated lead concentrations within the Project limits appear to be limited. Lead was only reported at one location at a concentration greater than the applicable DTSC-SL for commercial/industrial land uses of 320 mg/kg – lead was reported at a concentration of 527 mg/kg in the 0.5-foot sample from boring B-5. In addition, the elevated lead at that location appeared to be limited in extent vertically – lead was reported in the 1.5-foot sample from that boring at a concentration of 9.0 mg/kg.

- Similar to lead, PAHs related to the former railroad activities appear to be limited in extent based on the limited PAH data collected at the Site to date.

- The scattered roofing shingles on the ground in the western portion of IR Site 4 (Drum Lot 1) do not appear to contain asbestos based on the asbestos analytical results, which showed that the three samples collected did not contain asbestos.

Based on the information noted above, NCE recommends the following mitigation measures and/or engineering controls to isolate future users of the Bay Trail from the PECs identified during the Phase I and Phase II evaluations:

- Isolate the elevated concentrations of arsenic impacted soil along the former railroad corridor where it is coincident with the Bay Trail footprint. Isolation of these soils is anticipated to include being capped in place beneath and/or covered by the Bay Trail footprint.

- Isolate and/or install institutional controls to avoid exposures of anticipated elevated concentrations of arsenic impacted soil where the former railroad corridor is not coincident with the Bay Trail. Mitigation measures may include covering the impacted soils with a minimum one-foot of landscaping and ground cover during

Project development, constructing fences to eliminate user exposure, or relocating impacted soils to areas that will be covered by the Bay Trail footprint.

- Install institutional controls to isolate the nearby dilapidated structures and presumed presence of HBMs on the structures for future users of the Bay Trail. If the structures are located within the Project limits, NCE recommends that the structures be sampled and tested for HBMs and demolished following appropriate protocols and procedures and/or that fences be constructed around the structures to eliminate future user exposure.

To assess if the impacted soils within the railroad corridor within or adjacent to the proposed Bay Trail footprint pose a potential health hazard to future users of the finished Bay Trail, as well as the dilapidated buildings within and/or adjacent to the Project limits, NCE recommends that a Human Health Risk Assessment (HHRA) be performed based on the 35-percent design in accordance with DTSC (2015) guidance. The HHRA will establish necessary clean up levels to support the design, as well as further evaluation of remedial options to mitigate risks, if necessary.

Additionally, the protection of construction workers (i.e., health and safety plan, dust control, air monitoring, etc.) or other nearby people will be required during grading operations conducted within the Project limits. Following construction, where contaminated soil is left in-place using capping or other risk management procedures, an operation/maintenance plan and a land use covenant (LUC) will be required, along with 5-year reviews to ensure impacted soils are not disturbed and that the Bay Trail is properly maintained. In addition, the protocols outlined in the 2012 Soil and Groundwater Management Plan (Terraphase, 2012) for the NFD (Attachment F) and the covenants, easements, and land use restrictions from the Navy and City's Early Transfer Cooperative Agreement (Attachment G) should be followed during soil disturbance and building demolition activities at Segment B.

LIMITATIONS

The recent ESA activities were performed in accordance with practices and procedures generally accepted in the environmental consulting field. NCE's professional opinions are based upon its professional judgment, experience, and training. These opinions are also based upon data derived from the limited testing and analysis described in this report. It is possible that additional testing and analysis might produce different results and/or different opinions.

Our professional opinions expressed herein are based on limited data; no other warranty is given or implied by this report. A more extensive assessment, that would include additional surface and/or subsurface investigation and chemical analyses of soil and/or groundwater samples, would provide more definitive information concerning site-specific conditions. This report is complete and accurate to the extent that cited reports and agency information are complete and accurate.

This document was prepared for the sole use of EBRPD, the only intended beneficiaries of our work. Any party, other than the aforementioned, which relies on the information

contained herein without the prior written consent of EBRPD and does so at their own risk and without any liability or legal exposure on the part of the EBRPD or NCE.

REFERENCES

California Department of Toxic Substances Control (DTSC, 2009). *Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals*. January 16.

DTSC, 2015*. Preliminary Endangerment Assessment (PEA) Guidance Manual.* October.

NCE, 2016. *Hazardous Waste Memorandum – San Francisco Bay Trail at Point Molate*. April 20.

Terraphase Engineering, Inc. (Terraphase), 2015. *Soil and Groundwater Management Plan, Former Naval Fuel Depot Point Molate, Richmond, California*. September 21.

Tetra Tech, 2003a. *Final Supplemental Environmental Baseline Survey. Naval Fuel Depot Point Molate, Richmond, California*. March 3.

Tetra Tech, 2003b. *Final Human Health and Ecological Risk Assessment, Installation Restoration Site 4, Naval Fuel Depot Point Molate, Richmond, California*. March 24, 2003.

Tetra Tech and Sullivan Consulting Group, 2005. *Draft Risk Assessment, Technical Memorandum, Installation Restoration Site 4, Naval Fuel Depot Point Molate, Richmond, California*. January.

TABLES

Table 1 - Draft
Summary of Soil Analytical Data - Arsenic and Lead
Phase II Environmental Site Assessment
San Francisco Bay at Point Molate Project
Richmond, California

Sample Location Identification	Date Sampled	Sample (Depth bgs)	General Direction from Proposed Trail Alignment	Metals (Units in Milligrams per Kilogram)	
				Arsenic	Lead
Segment A					
B-1-0.5	03/08/16	0.5	Middle	2.5	9.3
B-1-1.5	03/08/16	1.5		3.9	8.4
B-2-0.5	03/08/16	0.5	Middle	2.9	13.1
B-2-1.5	03/08/16	1.5		3.5	9.2
B-3-0.5	03/08/16	0.5	Middle	4.6	63.5
B-3-1.5	03/08/16	1.5		3.7	36.9
B-4-0.5	03/08/16	0.5	MIddle	3.2	14.2
B-4-1.5	03/08/16	1.5		2.4	7.8
B-5-0.5	03/08/16	0.5	MIddle	4.8	**527**
B-5-1.5	03/08/16	1.5		2.0	9.0
B-6-0.4	03/08/16	0.4	MIddle	4.1	9.7
B-7-0.4	03/08/16	0.4	MIddle	2.3	8.3
B-34-0.5	03/08/16	0.5	MIddle	2.4	8.2
B-8-0.2	03/08/16	0.2	MIddle	5.8	11.9
B-9-0.2	03/10/16	0.2	Middle	3.3	7.2
B-10-0.5	03/10/16	0.5	Middle	4.3	31.8
B-10-1.5	03/10/16	1.5		5.9	46.2
B-47A-0	05/31/16	0	West	7.4	--
B-47A-1.5	05/31/16	1.5		6.2	--
B-47B-0	05/31/16	0	Middle	5.4	--
B-47B-1.5	05/31/16	1.5		5.4	--
B-47C-0	05/31/16	0	East	4.2	--
B-47C-1.5	05/31/16	1.5		3.5	--
B-11A-0.2	05/31/16	0.2	West	4.4	--
B-11A-1.5	05/31/16	1.5		5.0	--
B-11-0.5	03/10/16	0.5	Middle	**12.8**	19.9
B-11-1.5	03/10/16	1.5		**13.4**	15.5
B-11B-0	05/31/16	0	East	**16.2**	--
B-11B-1.5	05/31/16	1.5		**15.4**	--
Applicable Regulatory Screening Values					
DTSC-SLs for Residential Soil[1]				**0.067**	**80**
DTSC-SL for Industrial/Commercial Soil[1]				**0.25**	**320**
RWQCB ESL for Residential Soil[2]				**0.067**	**80**
RWQCB ESL for Commercial/industrial Soil[2]				**0.31**	**320**
Approximate Upper Limit of Expected Background				**8**	**--**

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				Arsenic	Lead
B-46A-0	05/31/16	0	West	5.2	--
B-46A-1.5	05/31/16	1.5		7.1	--
B-46B-0	05/31/16	0	MIddle	**39.9**	--
B-46B-1.5	05/31/16	1.5		**13.6**	--
B-46C-0	05/31/16	0	East	2.1	--
B-46C-1.5	05/31/16	1.5		7.3	--
B-45A-0	05/31/16	0	West	7.9	--
B-45A-1.5	05/31/16	1.5		4.2	--
B-45B-0	05/31/16	0	Middle	**11.8**	--
B-45B-1.5	05/31/16	2		**10.4**	--
B-45C-0.2	05/31/16	0.2	East	**9.2**	--
B-35A-0.5	06/01/16	0.5	West	2.1	--
B-35A-1	06/01/16	1		2.9	--
B-35-0.8	03/10/16	0.8	Middle	**14.9**	20.6
B-35-1.5	03/10/16	1.5		5.5	9.3
B-35B-0.5	06/01/16	0.5	East	**15.6**	--
B-35B-1.3	06/01/16	1.3		**28.4**	--
B-44A-0.5	06/01/14	0.5	West	6.4	--
B-44A-1.2	06/01/14	1.2		3.7	--
B-44B-0.5	06/01/14	0.5	Middle	3.0	--
B-44B-1	06/01/14	1		3.4	--
B-44C-0.5	06/01/14	0.5	East	3.8	--
B-44C-1.5	06/01/14	1.5		2.9	--
B-13-0.5	03/10/16	0.5	Middle	**26.9**	31.8
B-13-1.5	03/10/16	1.5		**11.1**	19.7
Applicable Regulatory Screening Values					
DTSC-SLs for Residential Soil[1]				**0.067**	**80**
DTSC-SL for Industrial/Commercial Soil[1]				**0.25**	**320**
RWQCB ESL for Residential Soil[2]				**0.067**	**80**
RWQCB ESL for Commercial/industrial Soil[2]				**0.31**	**320**
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Sample Location Identification	Date Sampled	Sample (Depth bgs)	General Direction from Proposed Trail Alignment	Metals (Units in Milligrams per Kilogram)	
				Arsenic	Lead
Segment B					
B-14-0.5	03/08/16	0.5	Middle	**26.0**	10.8
B-14-1.5	03/08/16	1.5		5.5	12.2
B-43A-0	05/31/16	0	West	6.6	--
B-43A-1.5	05/31/16	1.5		6.8	--
B-43B-0	05/31/16	0	Middle	5.9	--
B-43C-0	05/31/16	0	East	7.5	--
B-43C-1.5	05/31/16	1.5		5.0	--
B-42A-0	05/31/16	0	West	**9.3**	--
B-42A-1.5	05/31/16	1.5		**12.1**	--
B-42B-0	05/31/16	0.0	Middle	**13.4**	--
B-42B-1.5	05/31/16	1.5		7.0	--
B-42C-0	05/31/16	0	East	5.9	--
B-42C-1.5	05/31/16	1.5		5.0	--
B-15-0.5	03/08/16	0.5	West	2.8	8.9
B-15-1.5	03/08/16	1.5		6.1	19.9
B-15A-0	05/31/16	0	Middle	**8.9**	--
B-15A-1.5	05/31/16	1.5		**8.3**	--
B-15B-0	05/31/16	0	East	4.2	--
B-15B-1.5	05/31/16	1.5		**9.9**	--
B-41A-0	05/31/16	0	West	3.3	--
B-41A-1.5	05/31/16	1.5		6.1	--
B-41B-0	05/31/16	0	Middle	4.8	--
B-41B-1.5	05/31/16	1.5		4.2	--
B-41C-0	05/31/16	0	East	**36.2**	--
B-41C-1.5	05/31/16	1.5		7.3	--
Applicable Regulatory Screening Values					
DTSC-SLs for Residential Soil[1]				**0.067**	**80**
DTSC-SL for Industrial/Commercial Soil[1]				**0.25**	**320**
RWQCB ESL for Residential Soil[2]				**0.067**	**80**
RWQCB ESL for Commercial/industrial Soil[2]				**0.31**	**320**
Approximate Upper Limit of Expected Background				**8**	**--**

Table 1 - Draft
Summary of Soil Analytical Data - Arsenic and Lead
Phase II Environmental Site Assessment
San Francisco Bay at Point Molate Project
Richmond, California

Sample Location Identification	Date Sampled	Sample (Depth bgs)	General Direction from Proposed Trail Alignment	Metals (Units in Milligrams per Kilogram)	
				Arsenic	Lead
B-16-0.3	03/08/16	0.3	West	6.1	12.1
B-16-1.5	03/08/16	1.5		6.2	11.4
B-16A-0	05/31/16	0	Middle	7.7	--
B-16A-1.5	05/31/16	1.5		7.3	--
B-16B-0	05/31/16	0	East	**29.4**	--
B-16B-1.5	05/31/16	1.5		**23.3**	--
B-17-0.5	03/09/16	0.5	West	2.5	14.8
B-17-1.5	03/09/16	1.5		4.5	10.3
B-17A-0.4	05/31/16	0.4	Middle	4.2	--
B-17A-1.5	05/31/16	1.5		3.1	--
B-17B-0.4	05/31/16	0.4	East	2.9	--
B-17B-1.5	05/31/16	1.5		3.4	--
B-40A-0.2	05/31/16	0.2	West	1.6	--
B-40A-1.5	05/31/16	1.5		5.8	--
B-40B-0.2	05/31/16	0.2	Middle	3.4	--
B-40B-1.5	05/31/16	1.5		**ND (<10.0)**	--
B-40C-0.2	05/31/16	0.2	East	3.4	--
B-40C-1.5	05/31/16	1.5		3.1	--
B-18-0.5	03/09/16	0.5	Middle	3.8	11.0
B-18-1.5	03/09/16	1.5		4.0	14.0
B-19-0.5	03/09/16	0.5	Middle	ND (1.0)	ND (1.0)
B-19-1.5	03/09/16	1.5		4.7	11.2
B-20-0.3	03/09/16	0.3	Middle	4.3	9.6
B-21-0.5	03/09/16	0.5	Middle	3.3	9.2
B-21-1.5	03/09/16	1.5		5.5	10.2
B-22-0.4	03/09/16	0.4	North	4.1	69.5
B-23-0.5	03/09/16	0.5	West	1.4	6.1
B-23-1.5	03/09/16	1.5		1.6	2.3
B-24-0.3	03/09/16	0.3	Middle	2.0	5.7
Applicable Regulatory Screening Values					
DTSC-SLs for Residential Soil[1]				**0.067**	**80**
DTSC-SL for Industrial/Commercial Soil[1]				**0.25**	**320**
RWQCB ESL for Residential Soil[2]				**0.067**	**80**
RWQCB ESL for Commercial/industrial Soil[2]				**0.31**	**320**
Approximate Upper Limit of Expected Background				**8**	**--**

Table 1 - Draft
Summary of Soil Analytical Data - Arsenic and Lead
Phase II Environmental Site Assessment
San Francisco Bay at Point Molate Project
Richmond, California

Sample Location Identification	Date Sampled	Sample (Depth bgs)	General Direction from Proposed Trail Alignment	Metals (Units in Milligrams per Kilogram)	
				Arsenic	Lead
B-25-0.5	03/09/16	0.5	West	4.5	34.5
B-25-1.5	03/09/16	1.5		2.8	12.9
B-26-0.5	03/09/16	1.5	Middle	3.7	14.5
B-27-0.5	03/09/16	0.5	Middle	6.8	15.5
B-27-1.5	03/09/16	1.5		3.7	14.7
B-30-0.2	03/09/16	0.2	East	4.0	19.2
B-30-1.5	03/09/16	1.5		4.0	16.3
B-28-0.3	03/09/16	0.3	East	3.0	16.9
B-29-0	03/09/16	0.0	East	4.4	10.4
B-31-0.5	03/09/16	0.5	East	7.3	14.6
B-31-1.5	03/09/16	1.5		6.1	11.8
B-39A-0	05/31/16	0	West	**43.3**	--
B-39A-1.5	05/31/16	1.5		**39.4**	--
B-39B-0	05/31/16	0	Middle	**15.0**	--
B-39B-1.5	05/31/16	1.5		**12.1**	--
B-39C-0	05/31/16	0	East	3.7	--
B-39C-1.5	05/31/16	1.5		3.8	--
B-38A-0.5	05/31/16	0.5	West	1.8	--
B-38A-1.5	05/31/16	1.5		4.2	--
B-38B-0.2	05/31/16	0.2	Middle	2.4	--
B-38B-1.5	05/31/16	1.5		4.4	--
B-38C-0.5	05/31/16	0.5	East	3.2	--
B-38C-1.5	05/31/16	1.5		6.6	--
B-32-1.5	03/09/16	1.5	East	2.9	10.6
B-33A-0.2	05/31/16	0.2	West	1.9	--
B-33A-1.5	05/31/16	1.5		4.6	--
B-33-0.2	03/09/16	0.2	Middle	2.3	7.7
B-33B-0	05/31/16	0	East	1.9	--
B-33B-1.5	05/31/16	1.5		1.6	--
Applicable Regulatory Screening Values					
DTSC-SLs for Residential Soil[1]				**0.067**	**80**
DTSC-SL for Industrial/Commercial Soil[1]				**0.25**	**320**
RWQCB ESL for Residential Soil[2]				**0.067**	**80**
RWQCB ESL for Commercial/industrial Soil[2]				**0.31**	**320**
Approximate Upper Limit of Expected Background				**8**	**--**

Table 1 - Draft
Summary of Soil Analytical Data - Arsenic and Lead
Phase II Environmental Site Assessment
San Francisco Bay at Point Molate Project
Richmond, California

Sample Location Identification	Date Sampled	Sample (Depth bgs)	General Direction from Proposed Trail Alignment	Metals (Units in Milligrams per Kilogram)	
				Arsenic	Lead
B-37A-0	05/31/16	0	West	3.6	--
B-37A-1.5	05/31/16	1.5		3.3	--
B-37B-0	05/31/16	0	Middle	4.7	--
B-37B-1.5	05/31/16	1.5		5.5	--
B-37C-0	05/31/16	0	East	4.5	--
B-37C-1.5	05/31/16	1.5		3.5	--
B-36A-0	05/31/16	0	West	4.9	--
B-36A-1.5	05/31/16	1.5		6.4	--
B-36-0.5	03/09/16	0.5	Middle	**11.8**	26.9
B-36-1.5	03/09/16	1.5		**10.1**	14.6
B-36B-0	05/31/16	0	East	6.4	--
B-36B-1.5	05/31/16	1.5		4.2	--
Applicable Regulatory Screening Values					
DTSC-SLs for Residential Soil[1]				**0.067**	**80**
DTSC-SL for Industrial/Commercial Soil[1]				**0.25**	**320**
RWQCB ESL for Residential Soil[2]				**0.067**	**80**
RWQCB ESL for Commercial/industrial Soil[2]				**0.31**	**320**
Approximate Upper Limit of Expected Background				**8**	**--**

Notes:

[1] = Arsenic and lead by United States Environmental Protection Agency (EPA) Method 6010B.

[2] = Department of Toxic Substances Control (DTSC)-modified screening levels (DTSC-SLs) for residential soil (Last updated June 2016).

[3] = U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for residential soil (Last updated May 2016).

ND = Analyte was NOT DETECTED at a concentration greater than the reportling limit shown (laboratory reporting limit is in parenthases).

Bolded and shaded values indicate an arsenic concentration or laboratory reporting limit exceeded the appproximate upper limit of expected background and thata lead concentration exceeded the applicable DTSC-SL for comercial/industrial land uses.

Table 2 - Draft
Summary of Soil Analytical Data - PAHs
Phase II Environmental Site Assessment
San Francisco Bay Trail at Point Molate Project
Richmond, California

			PAHs[1] (Units in Milligrams per Kilogram)															
Sample Location Identification	**Date Sampled**	**Sample Depth (Feet bgs)**	**Acenaphthene**	**Acenaphthylene**	**Anthracene**	**Benzo(a)anthracene**	**Benzo(b)fluoranthene**	**Benzo(k)fluoranthene**	**Benzo(a)pyrene**	**Benzo(g,h,i)perylene**	**Chrysene**	**Dibenzo(a,h)anthracene**	**Fluoranthene**	**Fluorene**	**Indeno(1,2,3-cd)pyrene**	**Naphthalene**	**Phenanthrene**	**Pyrene**
B-37C-0	5/31/16	0	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)
B-42B-0	5/31/16	0	0.0333	0.204	2.39	1.47	1.87	ND (<0.0250)	**1.23**	0.713	2.62	0.283	3.49	0.282	0.798	0.128	1.96	2.74
B-43B-0	5/31/16	0	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	0.0943	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	0.0873	0.0837
B-45B-0	5/31/16	0	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)
B-47B-0	5/31/16	0	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)	ND (<0.0250)
Applicable Regulatory Screening Values for Residential Soil																		
EPA RSLs for Residential Soil[2]			**3,600**	**NL**	**18,000**	**0.16**	**0.16**	**1.6**	**0.016**	**NL**	**16**	**0.016**	**2,400**	**2,400**	**0.16**	**3.8**	**NL**	**1,800**
EPA RSLs for Commercial/Industrial Soil[2]			**45,000**	**NL**	**230,000**	**2.9**	**2.9**	**29**	**0.29**	**NL**	**290**	**0.29**	**30,000**	**30,000**	**2.9**	**17**	**NL**	**23,000**
RWQCB ESL for Residential Soil[3]			**3,600**	**NL**	**18,000**	**0.16**	**0.16**	**1.6**	**0.16**	**NL**	**15**	**0.016**	**2,400**	**2,400**	**0.16**	**3.3**	**NL**	**1,800**
RWQCB ESL for Commercial/Industrial Soil[3]			**45,000**	**NL**	**230,000**	**2.9**	**2.9**	**29**	**0.29**	**NL**	**260**	**0.29**	**2,400**	**30,000**	**2.9**	**14**	**NL**	**23,000**

Notes:
[1] = Polynuclear aromatic hydrocarbons by United States Environmental Protection Agency (EPA) Method 8270C-selective ion monitoring (SIM).
[2] = U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for residential soil (Last updated May 2016).
[4] = San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for residential shallow soil exposure (less than or equal to 10-feet below ground surface [bgs]). (Interim Final - February 2016).
ND = Analyte was NOT DETECTED at a concentration greater than the reportling limit shown (laboratory reporting limit is in parenthases).
Bolded and shaded values indicate a concentration exceeded the applicable EPA RSL regulatory screening value for commercial/industrial soil.
NL = Not listed.

PLATES

San Francisco Bay Trail at Point Molate

Proposed Alignment Overview Map

Legend

Proposed Trail Alignment

1 in. = 2,000 ft.

0 1,000 2,000 ft.

N

Credits: ESRI USA Topo basemap

Date: 12/31/2015

Author: jhall

Figure 1

NCE

East Bay Regional Park District

Legend

- Segment A
- Segment A Alternate

San Francisco Bay Trail at Point Molate

Segment A Detail Map

1 in. = 600 ft.

0 300 600 ft.

N

Credits: ESRI World Imagery basemap

Date: 12/22/2015
Author: jhall

Figure 2

NCE

East Bay Regional Park District

San Francisco Bay Trail at Point Molate

Segment B Detail Map

Legend

Segment B

1 in. = 600 ft.

0 300 600 ft.

N

Credits: ESRI World Imagery basemap

Date: 12/22/2015

Author: jhall

Figure 3

NCE

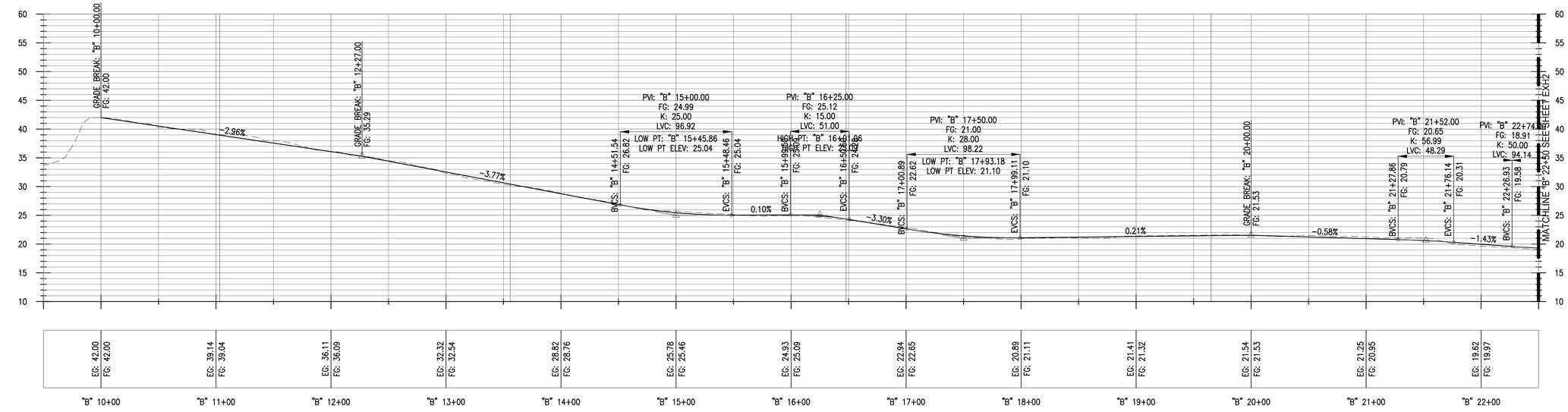
East Bay Regional Park District

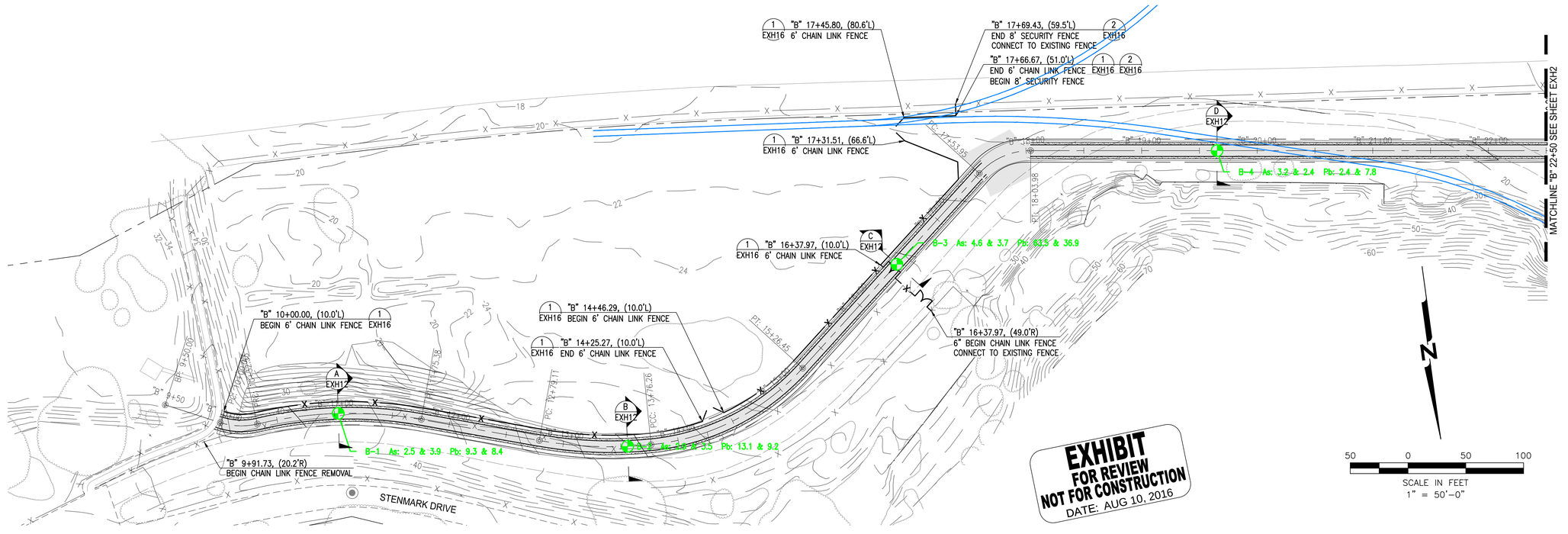
ATTACHMENT A

PLAN SHEETS

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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SAN FRANCISCO
BAY TRAIL
AT
POINT MOLATE

OWNER

East Bay Regional Park District

EAST BAY REGIONAL
PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

LEAD AND ARSENIC
"B" 9+50 TO "B" 22+50

DRAWING
EXH1

SHEET 1 OF 16

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VERTICAL: 1" = 10'

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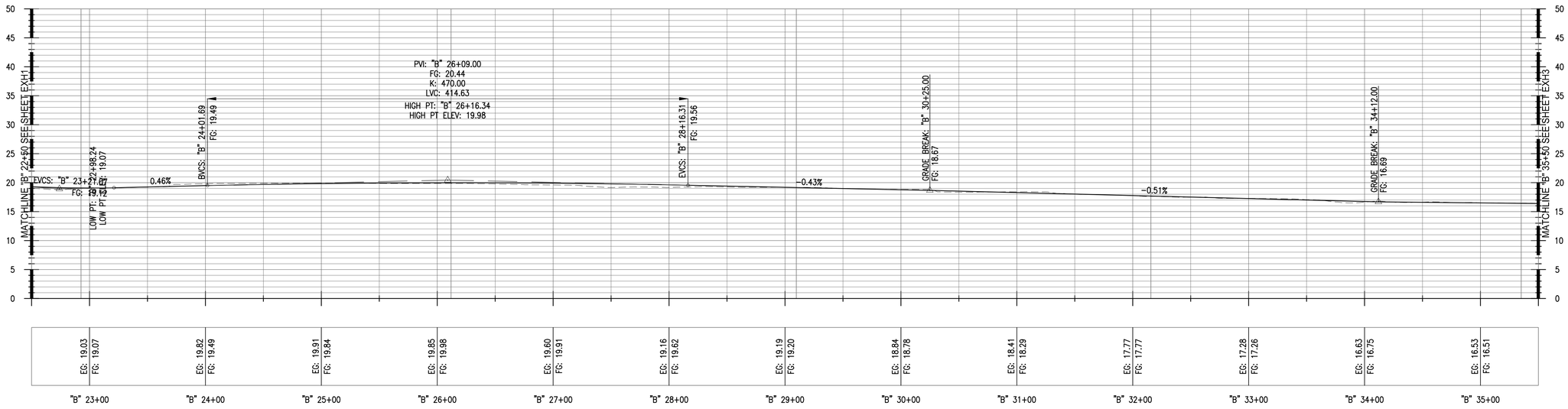

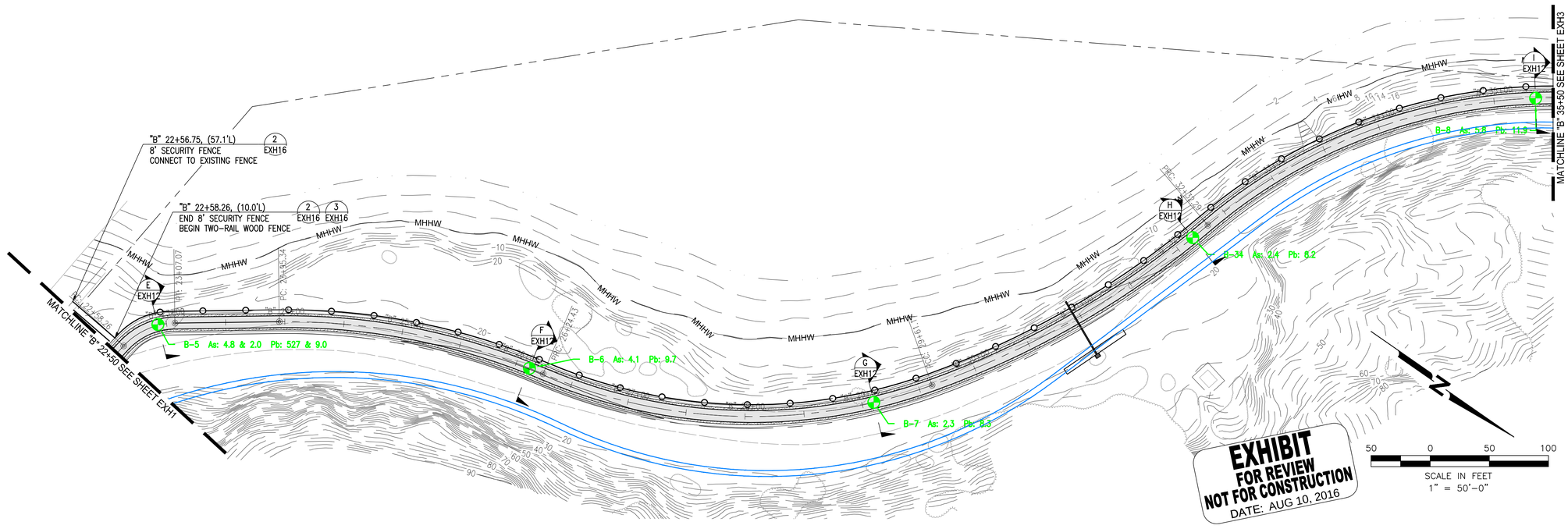

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OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

LEAD AND ARSENIC
"B" 22+50 TO "B" 35+50

DRAWING
EXH2

SHEET 2 OF 16

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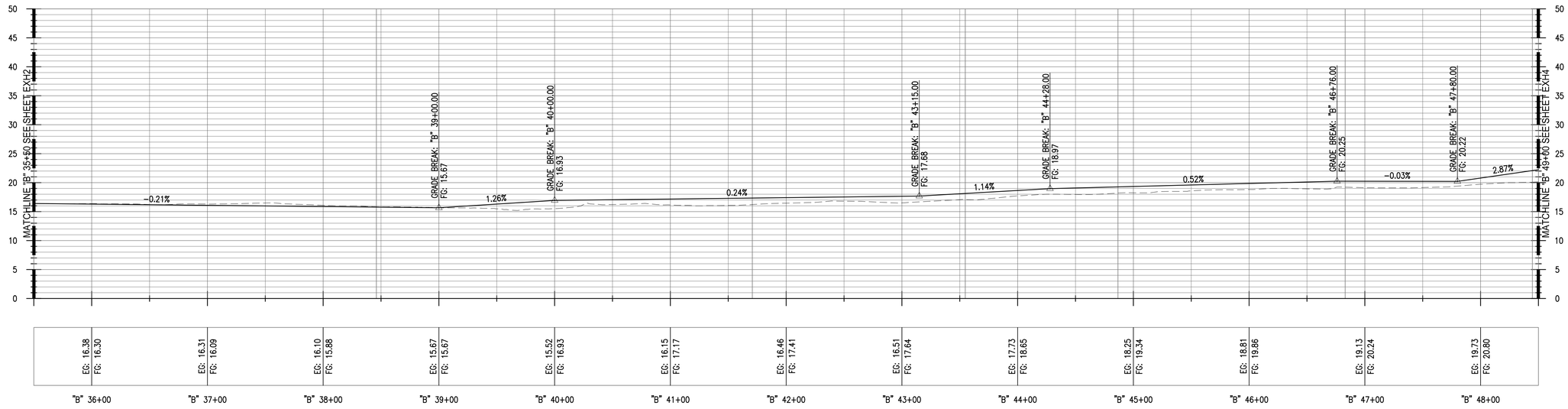

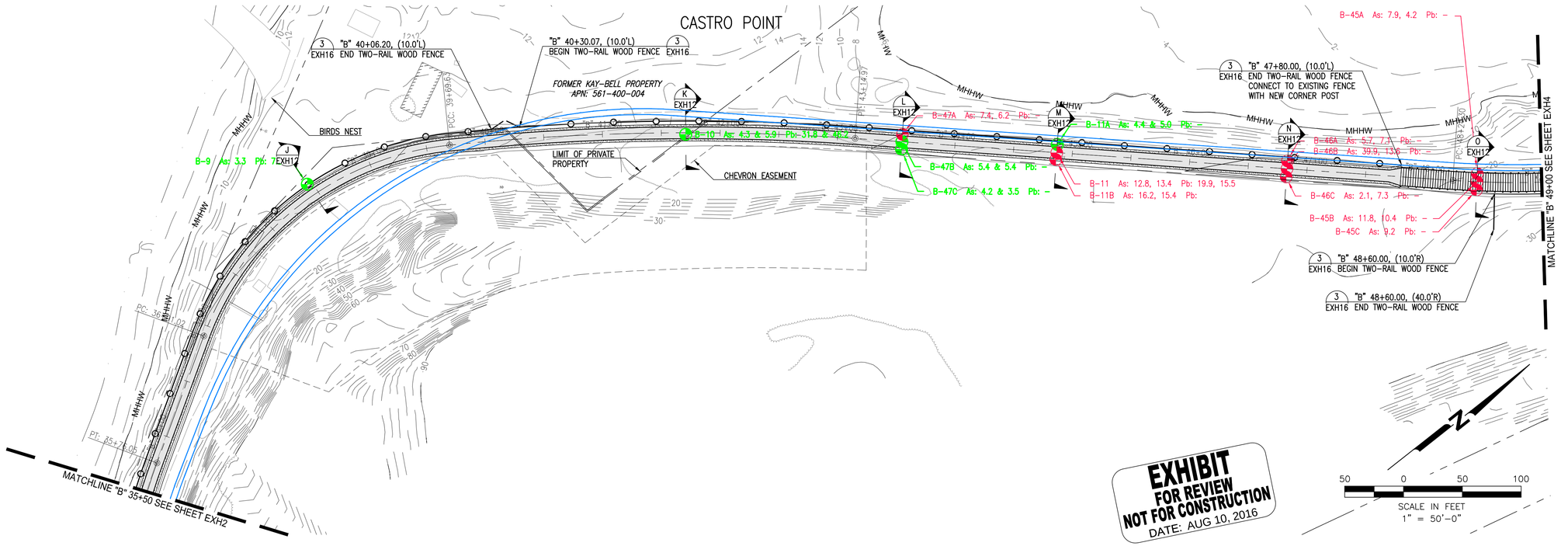

EXHIBIT
FOR REVIEW
NOT FOR CONSTRUCTION
DATE: AUG 10, 2016

50 0 50 100
SCALE IN FEET
1" = 50'-0"

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SAN FRANCISCO
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NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

LEAD AND ARSENIC
"B" 35+50 TO "B" 49+00

DRAWING
EXH3

SHEET 3 OF 16

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VERTICAL: 1" = 10'

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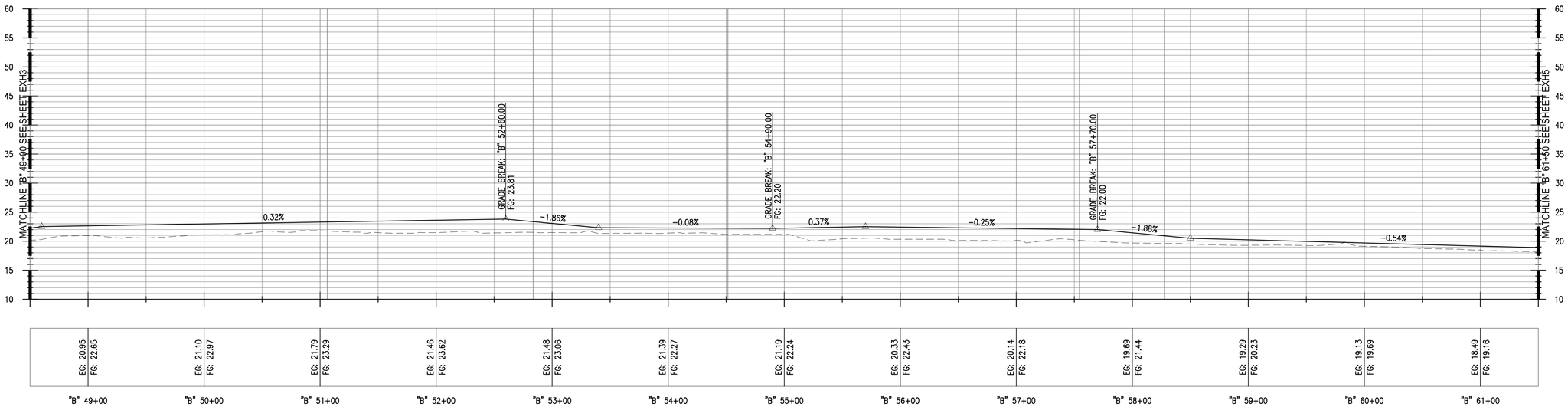

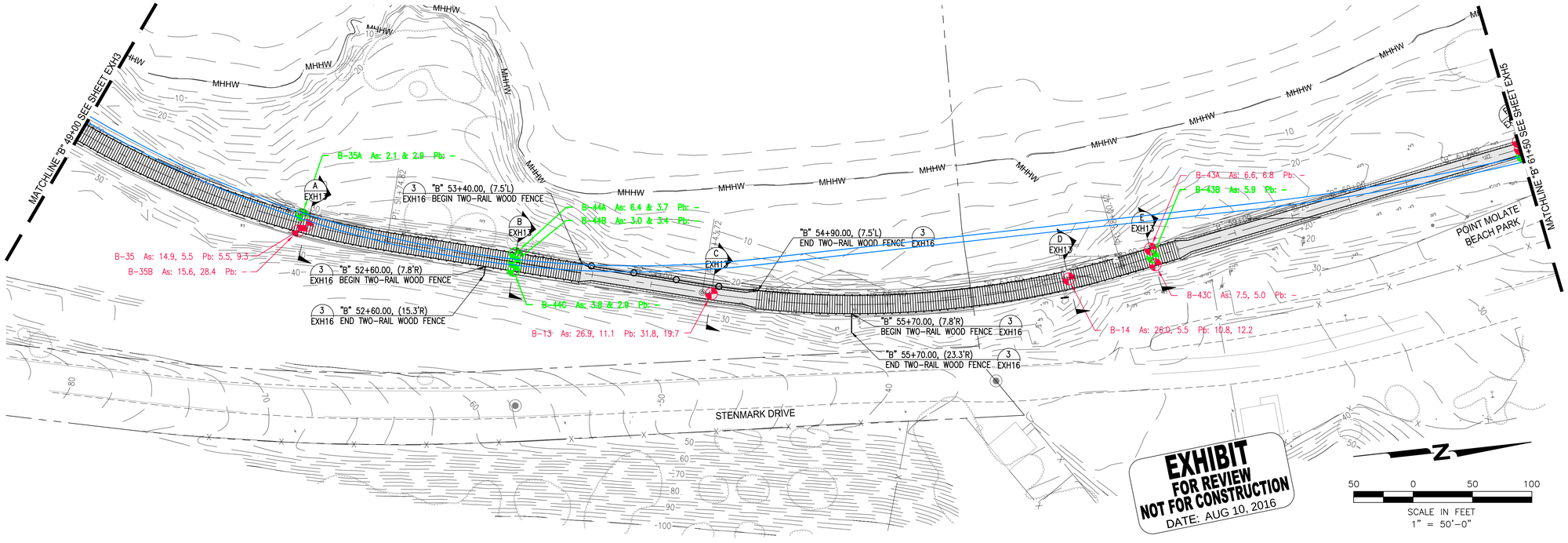

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East Bay Regional Park District

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PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO:	567.04.55
DESIGNED BY:	J.B.
DRAWN BY:	A.P.
CHECKED BY:	DATE:
DATE:	08/10/2016

SHEET TITLE

LEAD AND ARSENIC
"B" 49+00 TO "B" 61+50

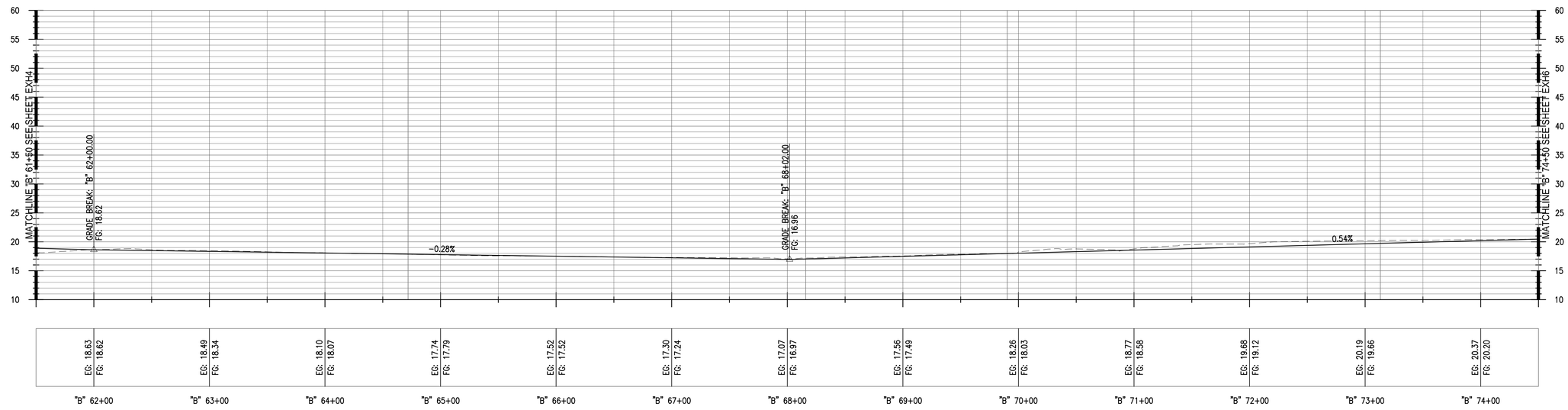
DRAWING

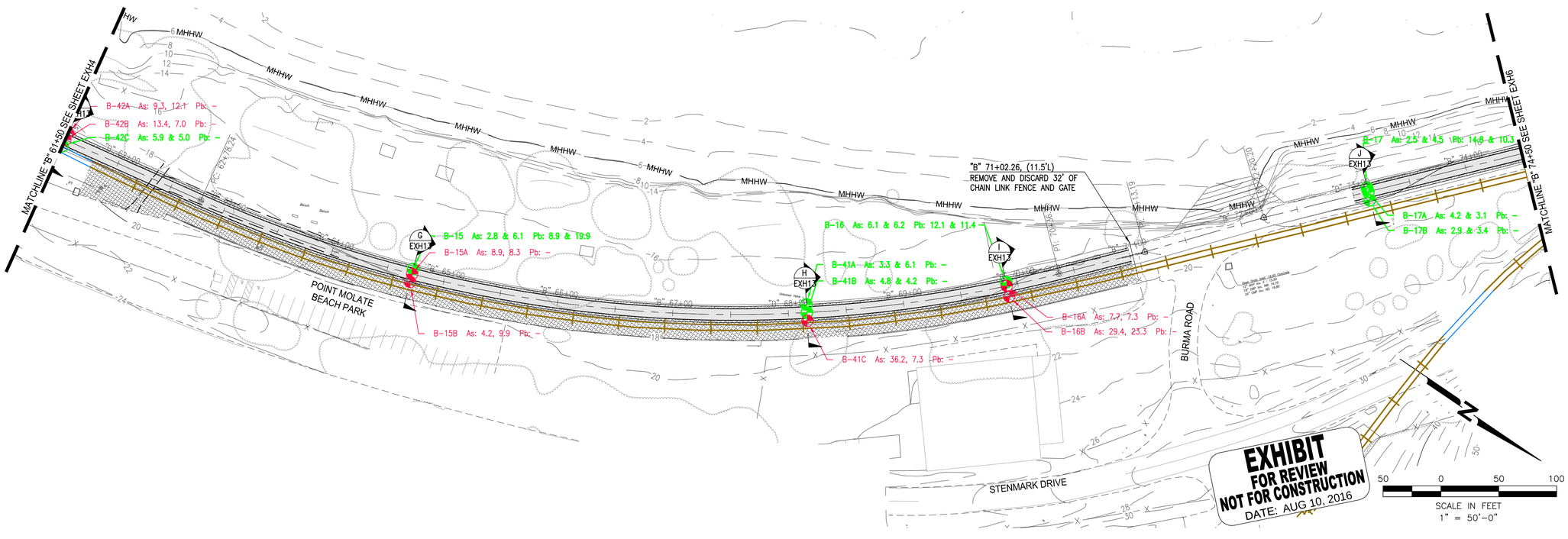
EXH4

SHEET 4 OF 16

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

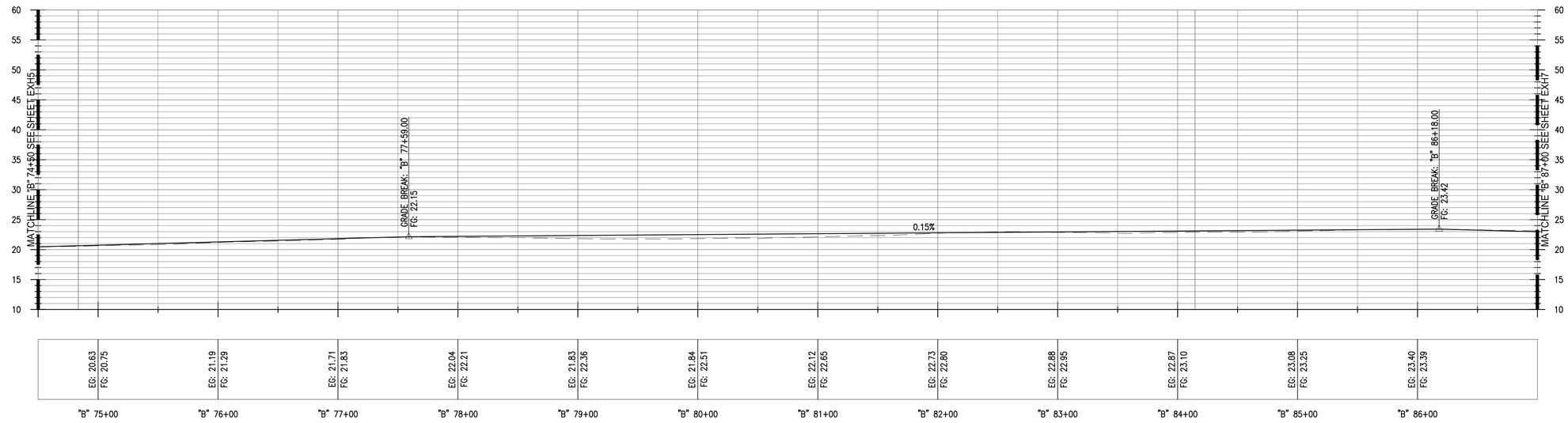
LEAD AND ARSENIC
"B" 61+50 TO "B" 74+50

DRAWING
EXH5

SHEET 5 OF 16

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE



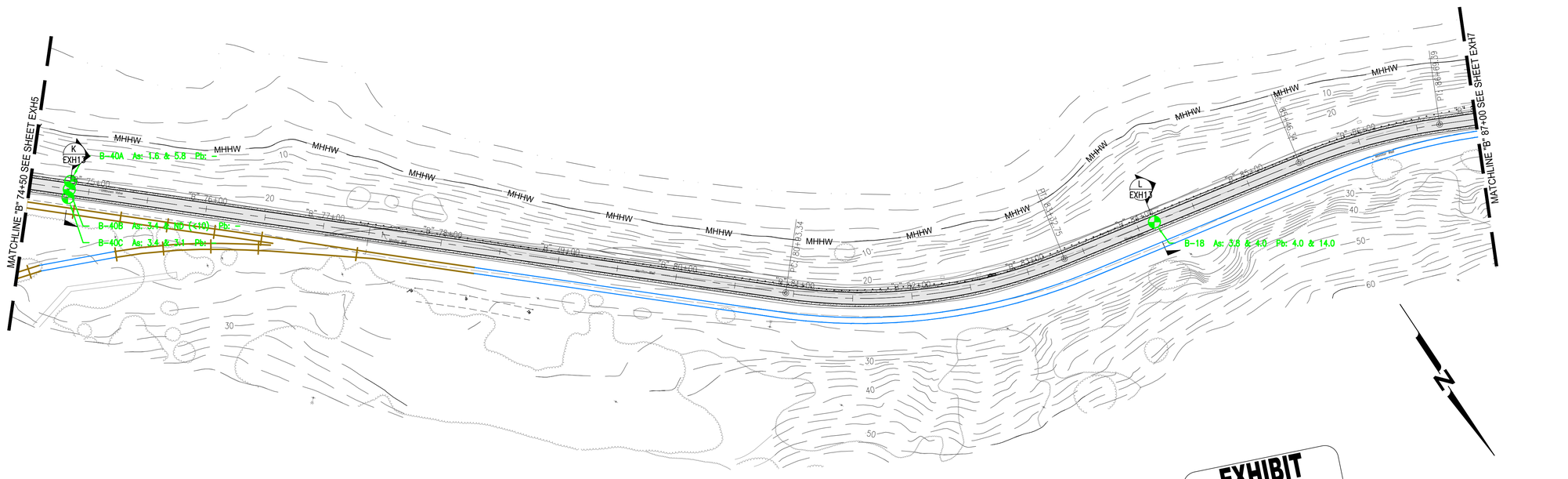


EXHIBIT
FOR REVIEW
NOT FOR CONSTRUCTION
DATE: AUG 10, 2016

50 0 50 100
SCALE IN FEET
1" = 50'–0"

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501 Canal Blvd., Suite I
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SAN FRANCISCO
BAY TRAIL
AT
POINT MOLATE

OWNER

East Bay Regional Park District

EAST BAY REGIONAL
PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

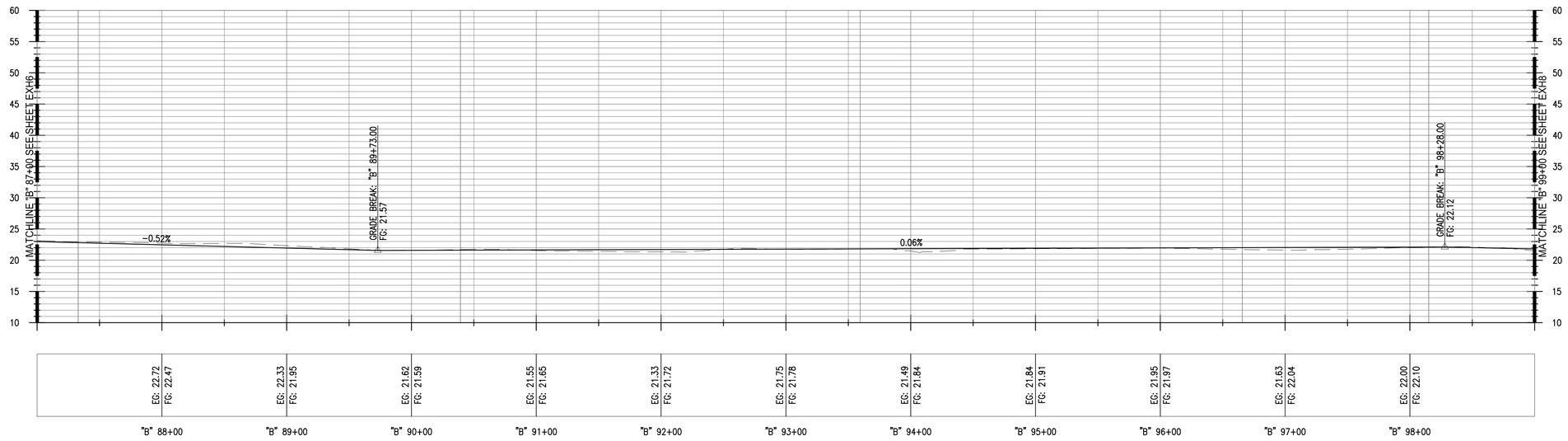
LEAD AND ARSENIC
"B" 74+50 TO "B" 87+00

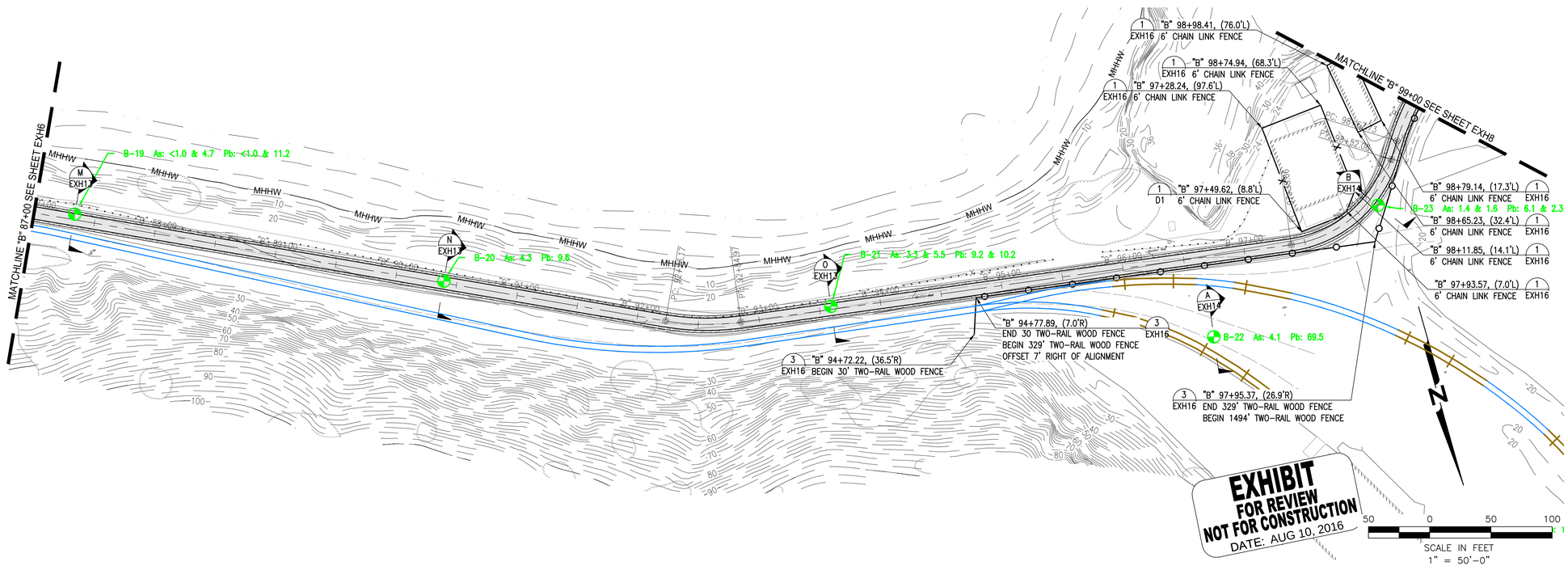
DRAWING
EXH6

SHEET 6 OF 16

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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East Bay Regional Park District

EAST BAY REGIONAL
PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

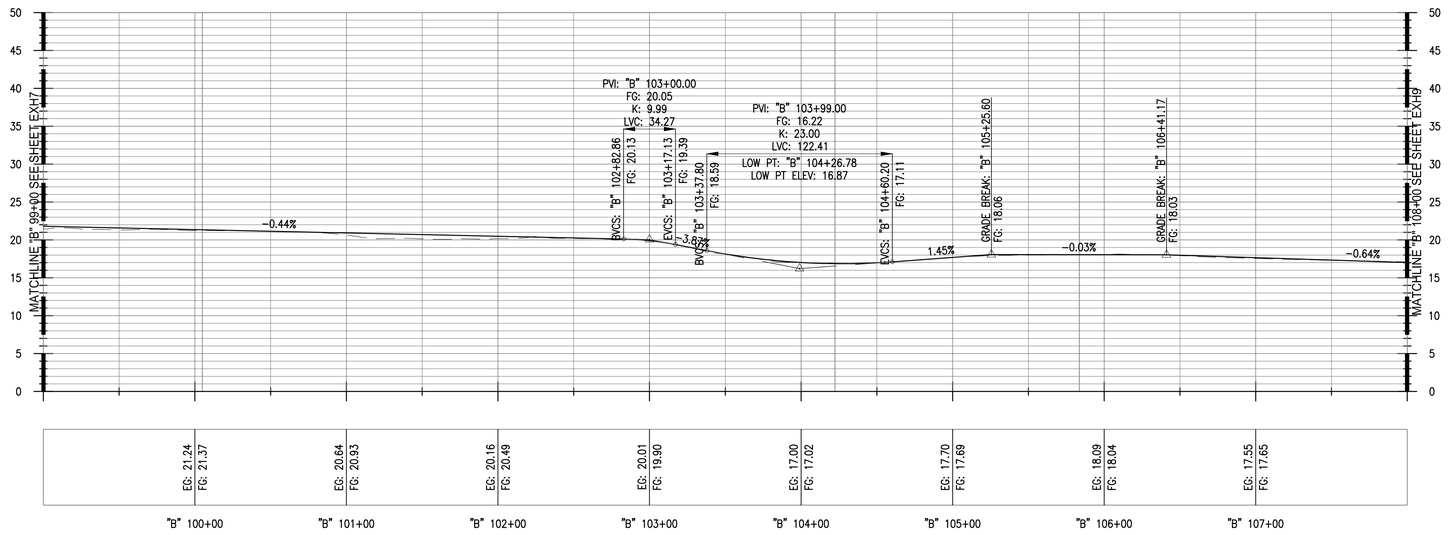
LEAD AND ARSENIC
"B" 87+00 TO "B" 99+00

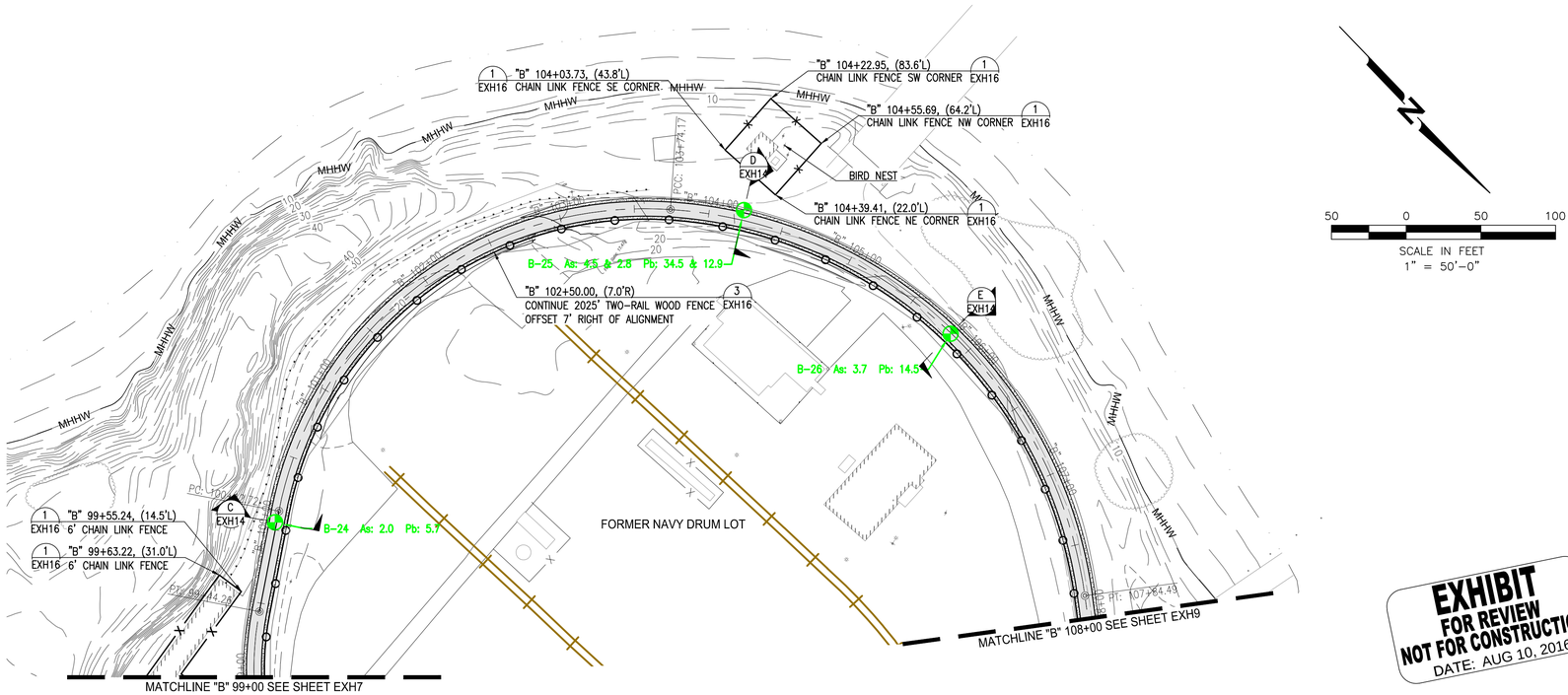
DRAWING
EXH7

SHEET 7 OF 16

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

LEAD AND ARSENIC
"B" 99+00 TO "B"
108+00

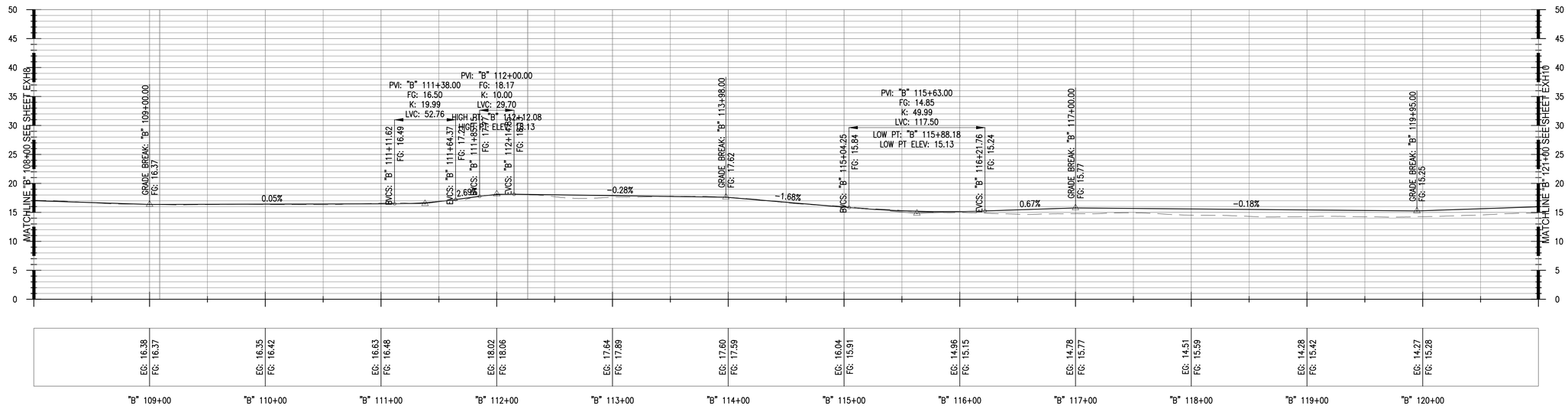
DRAWING
EXH8

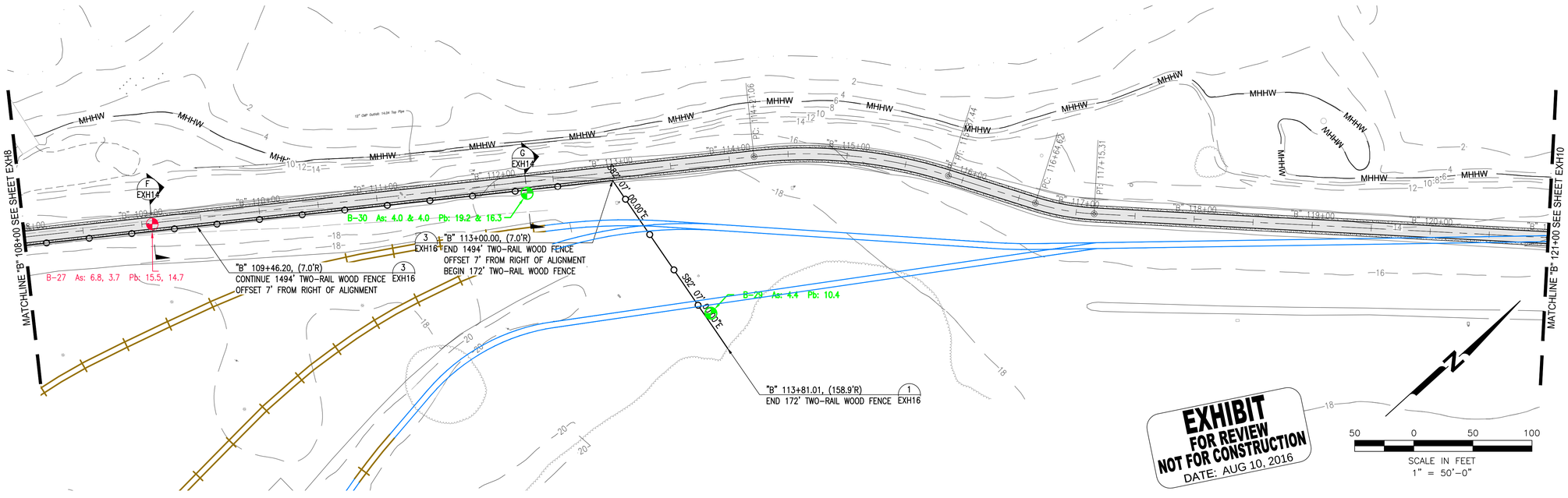
SHEET 8 OF 16

File: P:\Active Projects\East Bay Regional Park Dist - 567\567.04.55 - Bay Trail Segment A & B\CAD\Exhibits\10. Lead and Arsenic Exhibit\EXH6-EXH11 Lead and Arsenic.dwg | Layout: EXH8 | Printed Aug 17, 2016 @ 10:58am | ID: Jb.20.0s (LMS Tech)

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

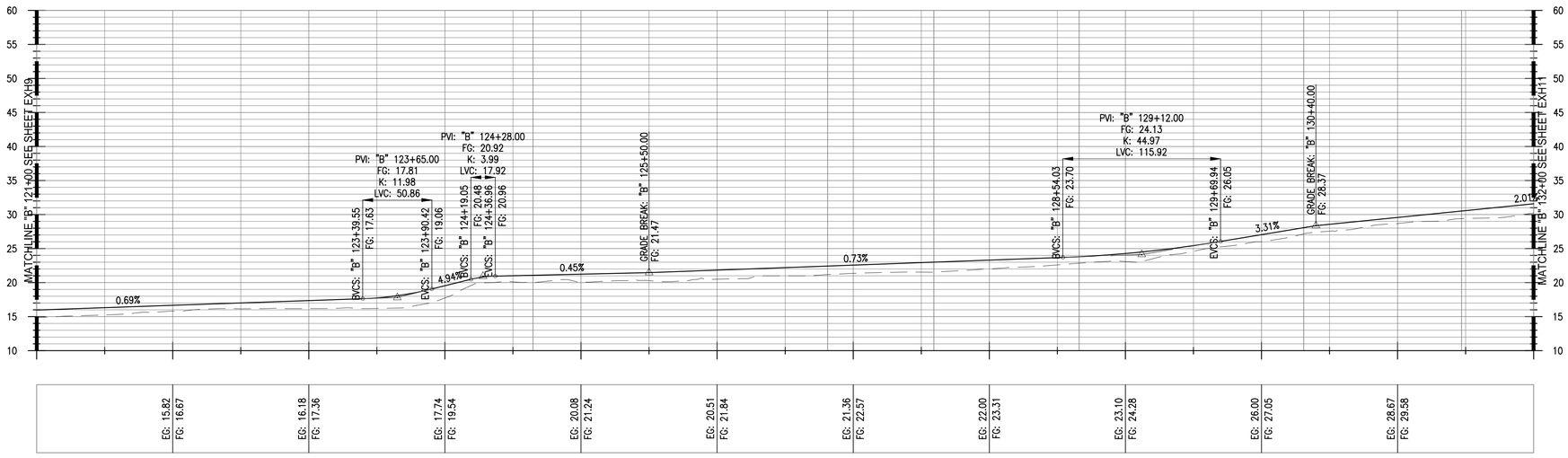
LEAD AND ARSENIC
"B" 108+00 TO "B"
121+00

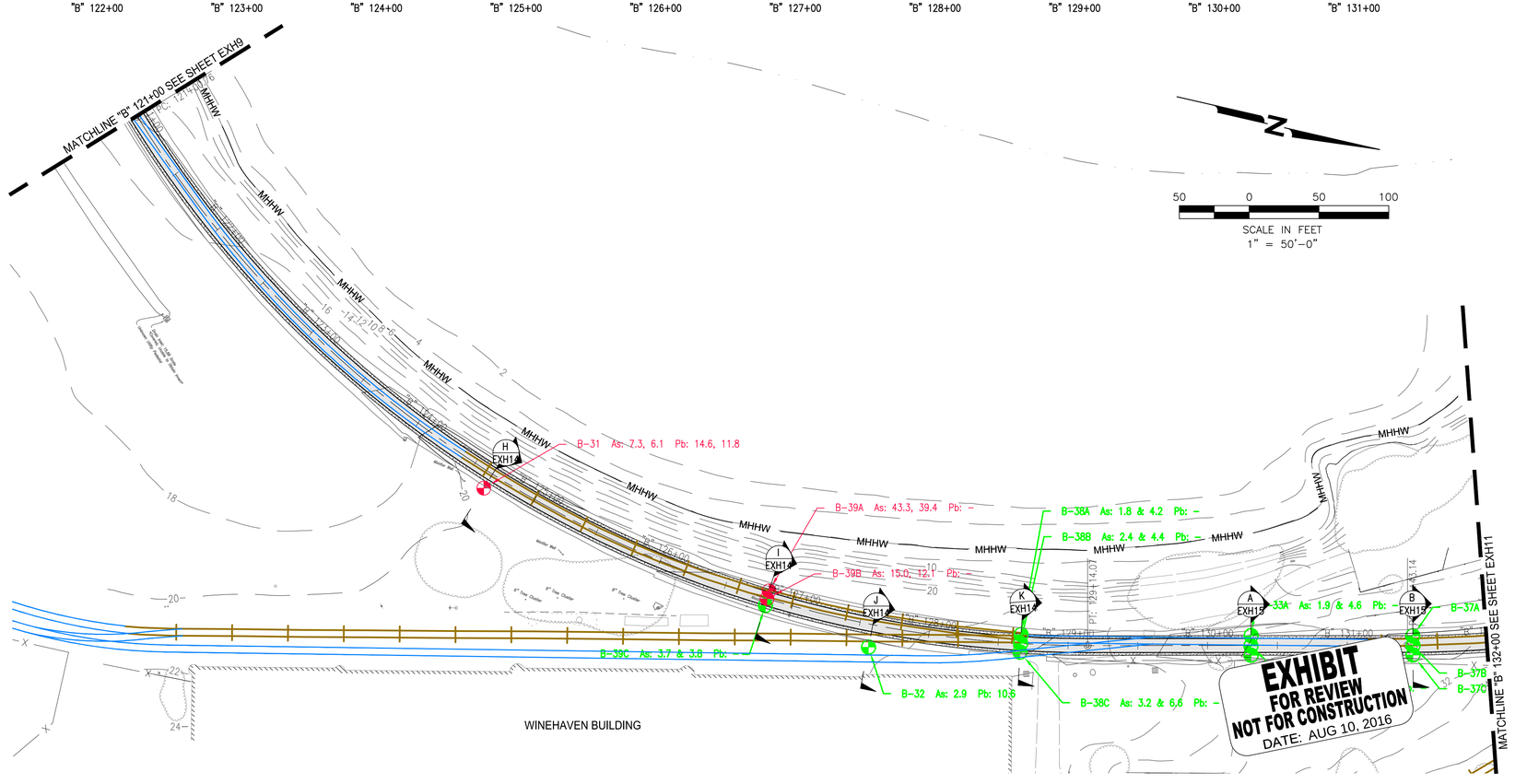
DRAWING
EXH9

SHEET 9 OF 16

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

LEAD AND ARSENIC
"B" 121+00 TO "B"
132+00

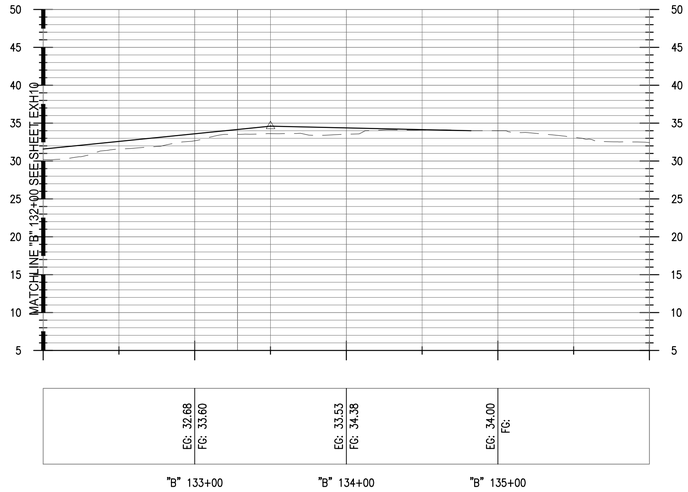
DRAWING
EXH10

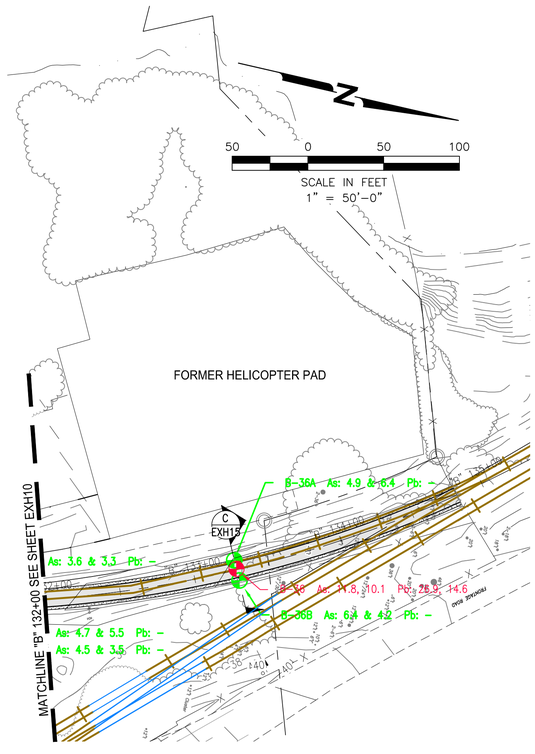
SHEET 10 OF 16

File: P:\Active Projects\East Bay Regional Park Dist - AS67\567.04.55 - Bay Trail Segment A & B\CAD\Exhibits\10_Lead and Arsenic Exhibit\EXH9-EXH11 Lead and Arsenic.dwg | Layout: EXH10 | Printed Aug 17, 2016 @ 10:59am | J. B. Zoll

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

B PROFILE





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PARK DISTRICT
2950 PERALTA OAKS CT,
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NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

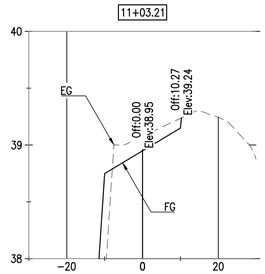
SHEET TITLE

LEAD AND ARSENIC
"B" 132+00 TO "B"
136+00

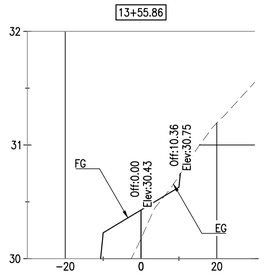
DRAWING
EXH11

SHEET 11 OF 16

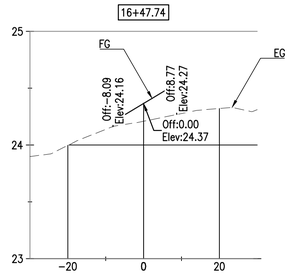
File: P:\Active Projects\East Bay Regional Park Dist – AS&T\567.04.55 – Bay Trail Segment A & B\CAD\Exhibits\10. Lead and Arsenic Exhibit\EXH6–EXH11 Lead and Arsenic.dwg | Layout: EXH11 | Printed Aug 17, 2016 @ 10:59am | ID:JA.20.0a (LMS Tech)



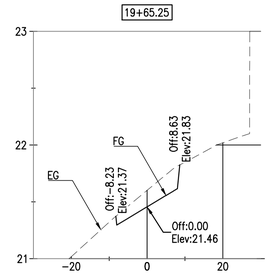
A EXH12 BORING: B−1 NTS



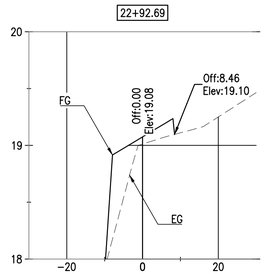
B EXH12 BORING: B−2 NTS



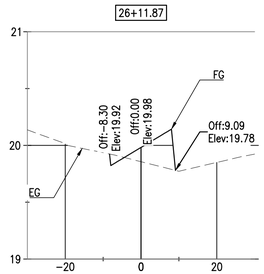
C EXH12 BORING: B−3 NTS



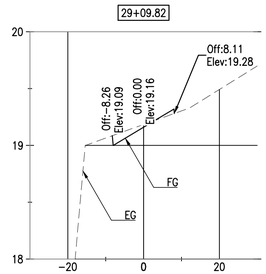
D EXH12 BORING: B−4 NTS



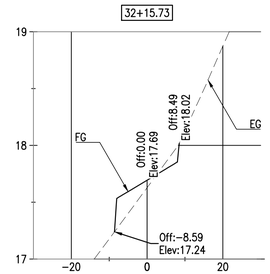
E EXH12 BORING: B−5 NTS



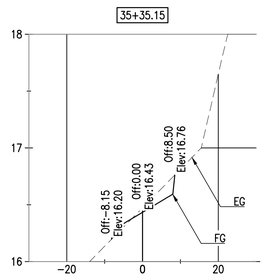
F EXH12 BORING: B−6 NTS



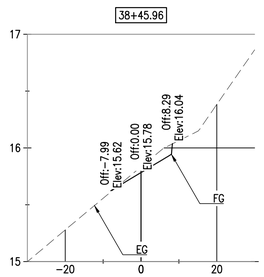
G EXH12 BORING: B−7 NTS



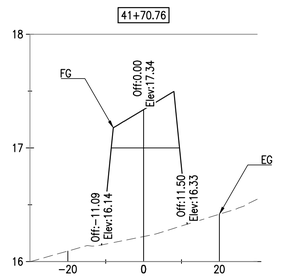
H EXH12 BORING: B−34 NTS



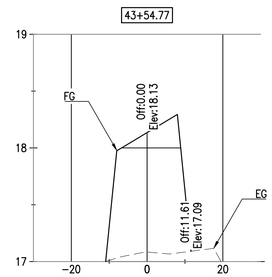
I EXH12 BORING: B−8 NTS



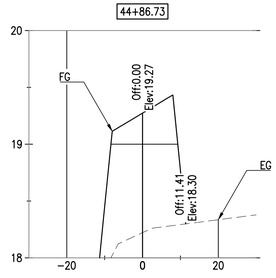
J EXH12 BORING: B−9 NTS



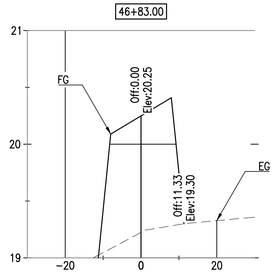
K EXH12 BORING: B−10 NTS



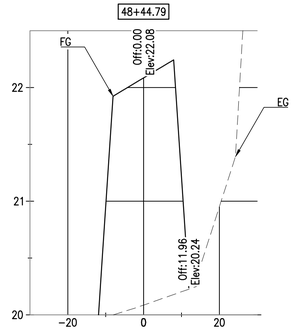
L EXH12 BORING: B−47A; B−47B; B−47C NTS



M EXH12 BORING: B−11; B−11A; B−11B NTS



N EXH12 BORING: B−46A; B−46B; B−46C NTS



O EXH12 BORING: B−45A; B−45B; B−45C NTS

SCALE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 8"

EXHIBIT
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2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

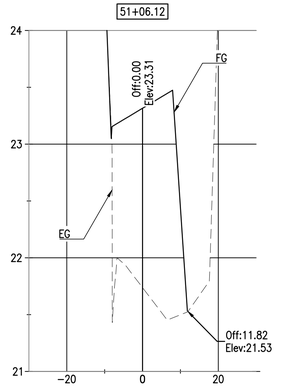
PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

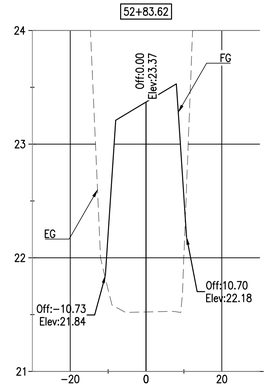
CROSS SECTIONS
"B" 10+00 TO "B"
50+00

DRAWING
EXH12

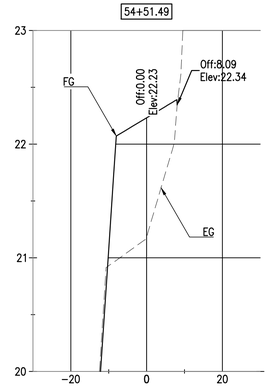
SHEET 12 OF 16



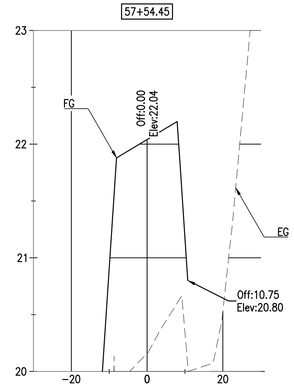
A EXH13 BORING: B–35; B–35A; B–35B
NTS



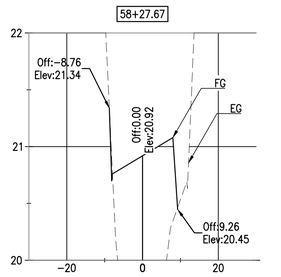
B EXH13 BORING: B–44A; B–44B; B–44C
NTS



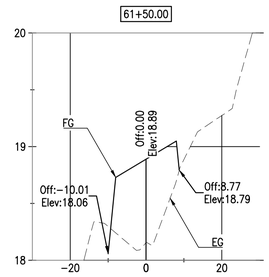
C EXH13 BORING: B–13
NTS



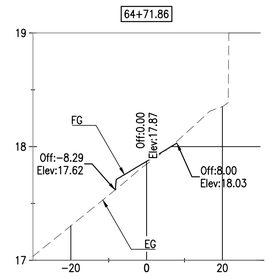
D EXH13 BORING: B–14
NTS



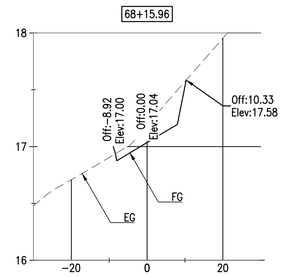
E EXH13 BORING: B–43A; B–43B; B–43C
NTS



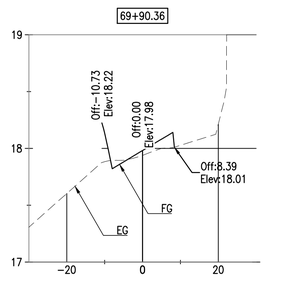
F EXH13 BORING: B–42A; B–42B; B–42C
NTS



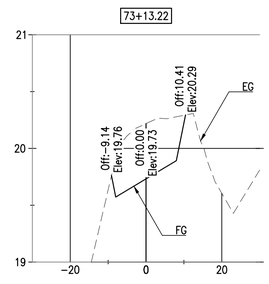
G EXH13 BORING: B–15; B–15A; B–15B
NTS



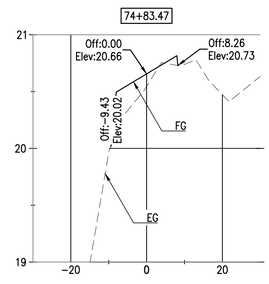
H EXH13 BORING: B–41A; B–41B; B–41C
NTS



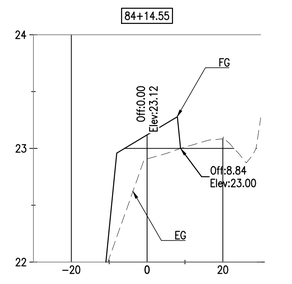
I EXH13 BORING: B–16; B–16A; B–16B
NTS



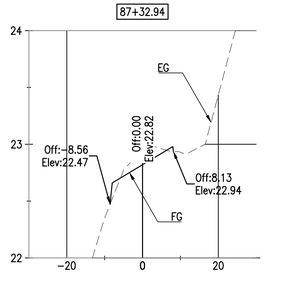
J EXH13 BORING: B–17; B–17A; B–17B
NTS



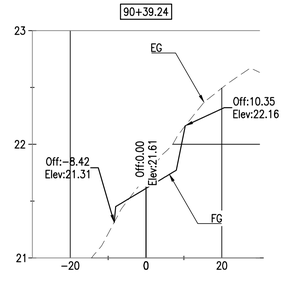
K EXH13 BORING: B–40A; B–40B; B–40C
NTS



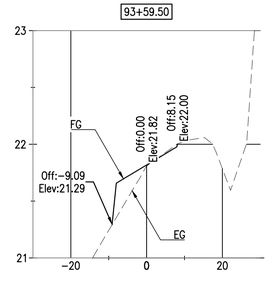
L EXH13 BORING: B–18
NTS



M EXH13 BORING: B–19
NTS



N EXH13 BORING: B–20
NTS



O EXH13 BORING: B–21
NTS

SCALE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 8"

EXHIBIT
FOR REVIEW
NOT FOR CONSTRUCTION
DATE: AUG 10, 2016

NCE
501 Canal Blvd., Suite I
Richmond, Ca. 94804
(510) 215-3620 * Fax (510) 215-2898

SAN FRANCISCO
BAY TRAIL
AT
POINT MOLATE

OWNER

East Bay Regional Park District

EAST BAY REGIONAL
PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

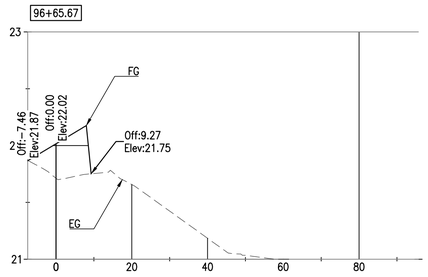
PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

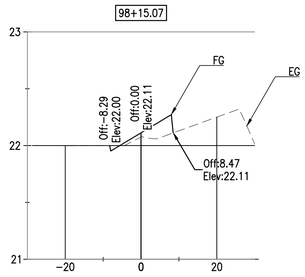
CROSS SECTIONS
"B" 50+00 TO "B"
95+00

DRAWING
EXH13

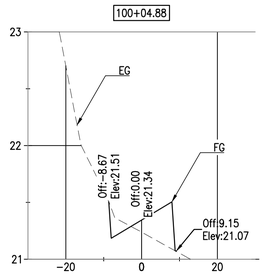
SHEET 13 OF 16



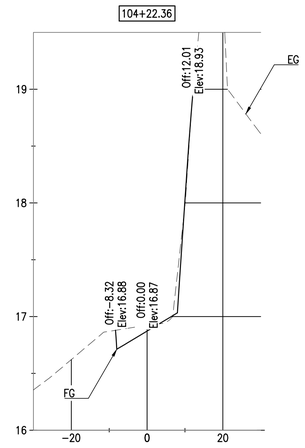
A EXH14 BORING: B−22 NTS



B EXH14 BORING: B−23 NTS



C EXH14 BORING: B−24 NTS



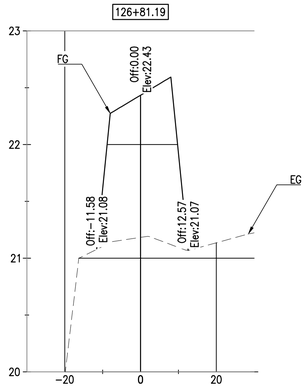
D EXH14 BORING: B−25 NTS

E EXH14 BORING: B−26 NTS

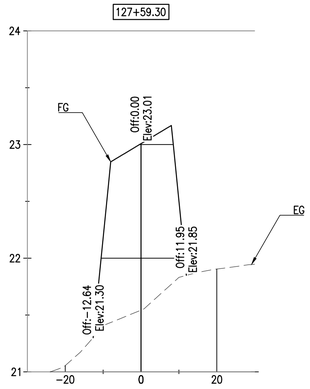
F EXH14 BORING: B−27 NTS

G EXH14 BORING: B−30 NTS

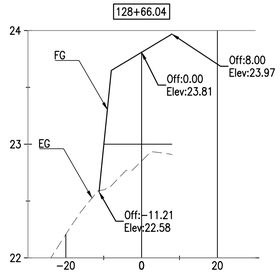
H EXH14 BORING: B−31 NTS



I EXH14 BORING: B−37A; B−37B; B−37C NTS



J EXH14 BORING: B−32 NTS



K EXH14 BORING: B−38A; B−38B; B−38C NTS

SCALE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 8"

EXHIBIT
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DATE: AUG 10, 2016

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(510) 215-3620 * Fax (510) 215-2898

SAN FRANCISCO
BAY TRAIL
AT
POINT MOLATE

OWNER

East Bay Regional Park District

EAST BAY REGIONAL
PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

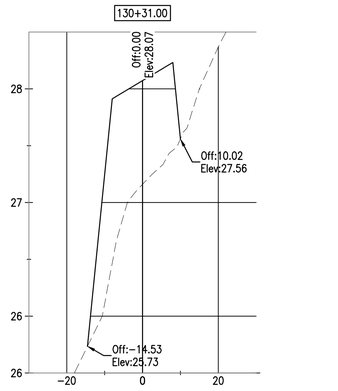
PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

CROSS SECTIONS
"B" 95+00 TO "B"
130+00

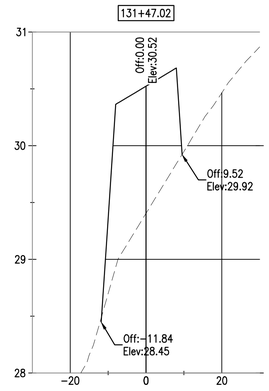
DRAWING
EXH14

SHEET 14 OF 16



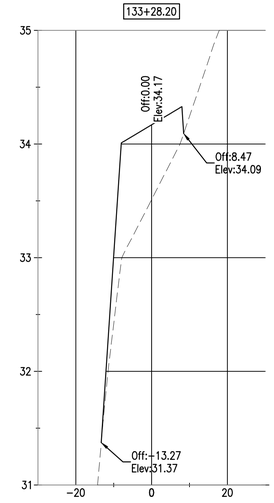
A EXH15 BORING: B-33; B-33A; B-33B

NTS



B EXH15 BORING: B-37A; B-37B; B-37C

NTS



C EXH15 BORING: B-36; B-36A; B-36B

NTS

SCALE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 8"

EXHIBIT
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DATE: AUG 10, 2016

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Richmond, Ca. 94804
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SAN FRANCISCO
BAY TRAIL
AT
POINT MOLATE

OWNER

East Bay Regional Park District

EAST BAY REGIONAL
PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

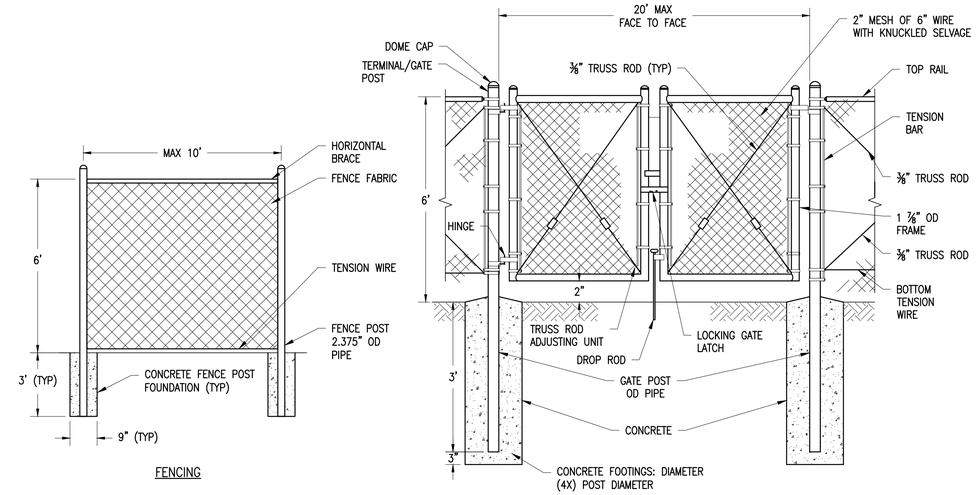
SHEET TITLE

CROSS SECTIONS
"B" 130+00 TO "B"
135+00

DRAWING
EXH15

SHEET 15 OF 16

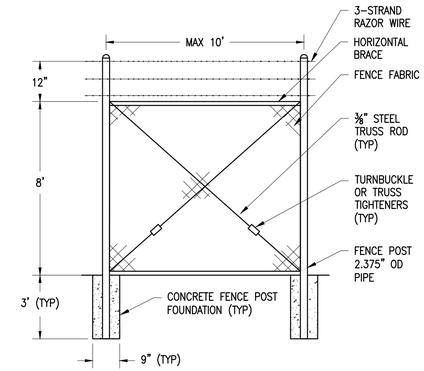
File: P:\active projects\east bay regional park dist - 0567\567.04.55 - bay trail segment a & b\CAD\Exhibits\10. lead and arsenic exhibit\EXH11-EXH14 Cross Sections.dwg | Layout: EXH15 | Printed Aug 11, 2016 @ 8:58am | D.AP.20.0a (LMS Tech)



GATE POST		
FENCE HEIGHT	GATE WIDTHS	ROUND OD PIPE
6'-0" AND LESS	UP THRU 6'-0"	2.875"
	OVER 6'-0" THRU 12'-0"	4.500"
	OVER 12'-0" THRU 18'-0"	5.563"
	OVER 18'-0" TO 24'-0" MAX	6.625"

1 EXH16 — CHAIN LINK FENCE AND GATE
NTS

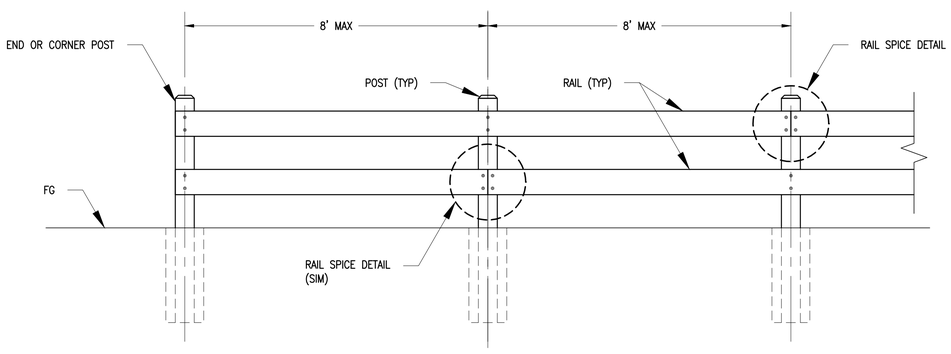
NOTES:
1. CHAIN LINK FABRIC SHALL BE ZINC COATED STEEL MANUFACTURED IN COMPLIANCE WITH ASTM STANDARD A 392 WITH A 2 INCH MESH OF 6 GAUGE WIRE WITH KNUCKLED SELVAGE.
2. TENSION WIRE SHALL BE 6 GAUGE.



FENCING

2 EXH16 — SECURITY FENCE
NTS

NOTES:
1. CHAIN LINK FABRIC SHALL BE ZINC COATED STEEL MANUFACTURED IN COMPLIANCE WITH ASTM STANDARD A 392 WITH A 2 INCH MESH OF 6 GAUGE WIRE WITH KNUCKLED SELVAGE.
2. TENSION WIRE SHALL BE 6 GAUGE.

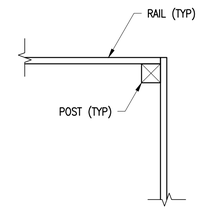


ELEVATION

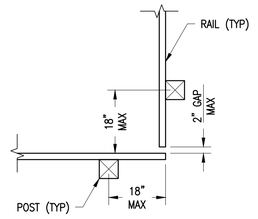
2 EXH16 — TWO-RAIL WOOD FENCE
NTS

SOURCE: EAST BAY REGIONAL PARK DISTRICT – STANDARD PLANS 203.

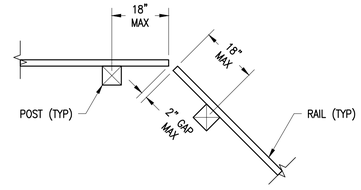
NOTES:
1. POSTS SHALL BE 6X6 PRESSURE TREATED ROUGH DOUGLAS FIR #2 OR BETTER FREE OF HEART CENTER. PRESSURE TREATED SHALL BE AWPA CA-B 0.21 PCF OR ACQ 0.40 PCF MINIMUM.
2. SET POSTS PLUMB AND BACKFILL WITH NATIVE MATERIAL. REMOVE ALL ROCKS AND CLODS GREATER THAN 1.5" THEN COMPACT IN 6" LIFTS.
3. TWO-RAIL FENCE RAILS SHALL BE 2X8 NON-PRESSURE TREATED, S4S DOUGLAS FIR, #2 OR BETTER.
4. INSTALL FENCE RAILS FACING TRAIL, UNLESS NOTED OTHERWISE.
5. CARRIAGE BOLTS SHALL BE 3/8" DIA HOT-DIPPED GALVANIZED CARRIAGE BOLTS WITH NUTS AND FLAT WASHERS. COUNTERSINK NUTS AND WASHERS AT BACK OF POSTS WITH 1.125" DIA X 1" MAX DEEP HOLES. PROJECTING BOLTS ENDS SHALL BE CUT FLUSH WITH POST AFTER TIGHTENING.
6. STRUCTURAL SCREWS SHALL BE SELF-DRILLING, RUGGED STRUCTURAL SCREWS "RSS", WITH "CLIMATEK" COATING, AS MANUFACTURED BY GRK CANADA LTD, OR EQUAL. USE 3/8" X 7-1/4" FOR ONE-RAIL FENCE AND 5/16 X 4" FOR TWO-RAIL FENCE. SCREW HEADS SHALL BE INSTALLED FLUSH OR SLIGHTLY COUNTER-SUNK PER MFG.
7. INSTALL CARRIAGE BOLTS OR STRUCTURAL SCREWS CENTERED ON AND PERPENDICULAR TO MEMBERS WITH AN EVEN EQUIDISTANT PATTERN.
8. EASE EXPOSED CORNERS OF POSTS AND RAILS AT THE END OF ALL FENCES, INCLUDING BOTH SIDES OF EACH FENCE OPENING.
9. STAIN RAILS AND POSTS "EBRPD BROWN STAIN" PER EBRPD STD PLAN 003 PAINT SPECIFICATIONS.



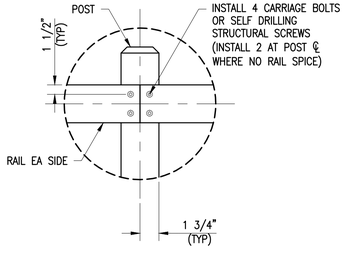
PLAN AT 90° CORNER



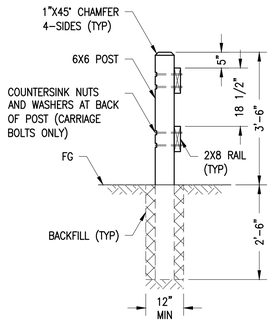
ALTERNATE PLAN AT 90° CORNER



PLAN AT OBTUSE OR ACUTE CORNER



RAIL SPICE DETAIL



SECTION

EXHIBIT
FOR REVIEW
NOT FOR CONSTRUCTION
DATE: AUG 01, 2016

NCE
501 Canal Blvd., Suite I
Richmond, Ca. 94804
(510) 215-3620 * Fax (510) 215-2898

SAN FRANCISCO BAY TRAIL AT POINT MOLATE

OWNER

East Bay Regional Park District

EAST BAY REGIONAL PARK DISTRICT
2950 PERALTA OAKS CT,
OAKLAND, CA 94605

NO.	DATE	DESCRIPTION

PROJECT NO: 567.04.55
DESIGNED BY: J.B.
DRAWN BY: A.P.
CHECKED BY: DATE:
DATE: 08/10/2016

SHEET TITLE

FENCING DETAILS

DRAWING
EXH16

SHEET 16 OF 16

ATTACHMENT B

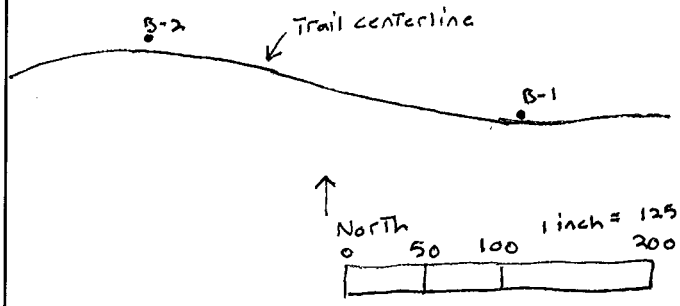
BORING LOGS

NCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-1
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Solid Flight auger	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal Mod. / SPT	
HAMMER WT.: 140 lbs	DROP:
STARTED, TIME: 0931 hours	DATE: 3/8/16
COMPLETED, TIME: 1005 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		15 17	18"	15"						1			
		17 7	18"	15"						2			
		5 4								3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (2.5-inches)

Silty sand (SM) - dark grayish brown (10YR 4/2); 60% Fine to medium sand; 25% non-plastic Fines; 5% Fine rounded gravel; dense to loose; moist.

B-1-0.5 was collected at 0956 hours.

B-1-1.5 was collected at 1000 hours.

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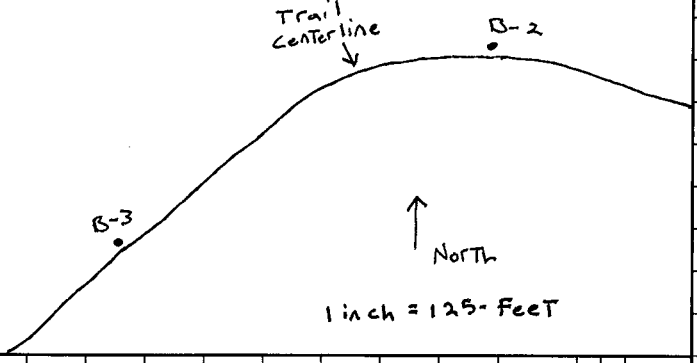
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-2
JOB NO.: 567.04.55	TOTAL DEPTH: 2- Feet (24-inches)
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified, SPT	
HAMMER WT.: 140 lbs	DROP:
STARTED, TIME: 1012 hours	DATE: 3/8/16
COMPLETED, TIME: 1041 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		42 23	19"	12"						1			
		12 14	18	12"						2			
		8 8								3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt - 2-inches Thick

Silty Sand (SM) - brown (7.5YR4/2); 70% Fine to medium sand; 25% non-plastic fines; 5% Fine rounded gravel; moist.

B-2-0.5 was collected at 1036 hours.

B-2-1.5 was collected at 1041 hours.

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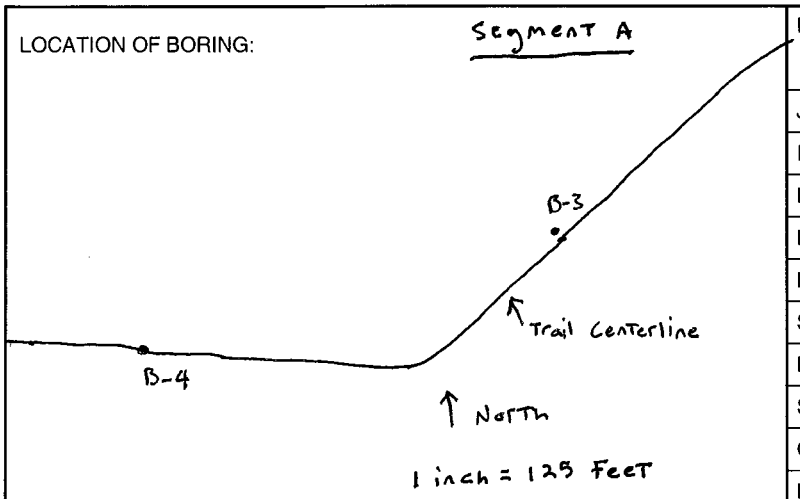
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-3
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris, Veni	
SAMPLING METHODS: Cal Modified	
HAMMER WT.: 140 lbs	DROP:
STARTED, TIME: 1100 hours	DATE: 3/8/16
COMPLETED, TIME: 1115 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE	DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		29	18"	16"			1			
		35								
		35					2			
		50 For 6"		5"						
		6"					3			
							4			
							5			
							6			
							7			
							8			
							9			
							10			

Silty Sand with Gravel (SM) - brown (7.5YR4/2); 60% Fine Sand; 20% non-plastic fines; 20% Fine rounded gravel;

B-3-0.5 was collected at 1104 hours.

B-3-1.5 was collected at 1112 hours

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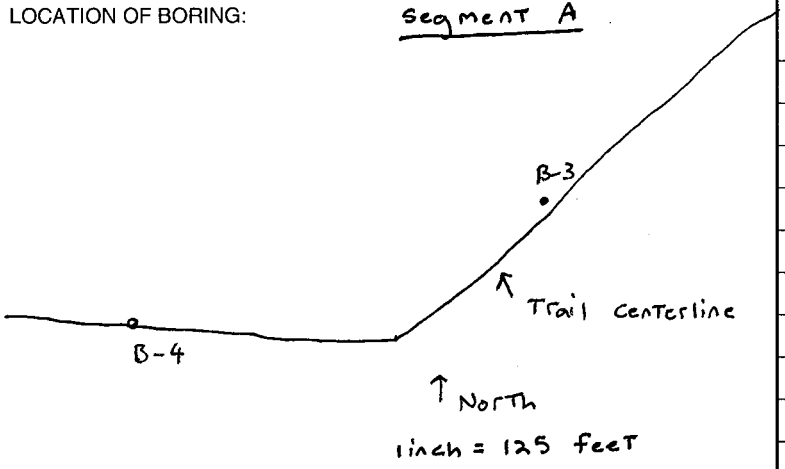
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-4
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal. Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1130 hours	DATE: 3/8/16
COMPLETED, TIME: 1200 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		15 24	18"	16"						1			
		19 8	18"	16"						2			
		7 6								3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

silty sand with gravel (sm) - brown (7.5YR4/2); 60% fine sand; 20% non-plastic fines; 20% fine rounded gravel; dense; moist.

B-4-0.5 was collected at 1133 hours.

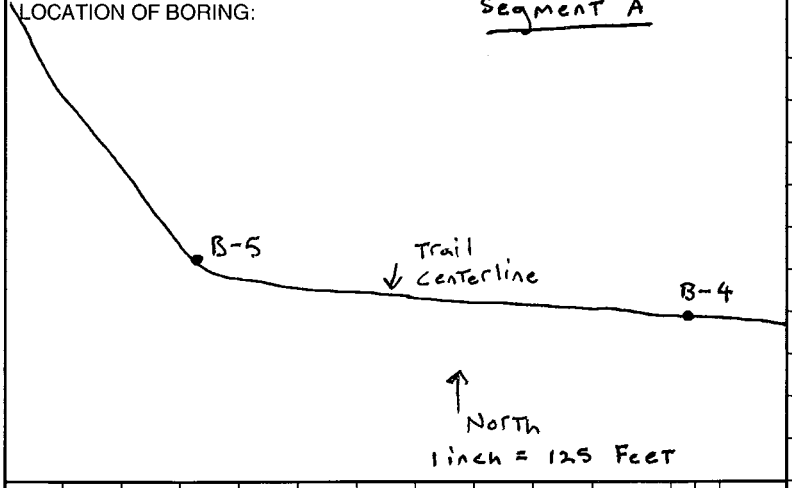
B-4-1.5 was collected at 1138 hours.

NCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-5
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal Modified (0.5) and drill cuttings (1.5')	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1200 hours	DATE: 3/8/16
COMPLETED, TIME: 1240 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		4 6	18"	18"						1			
		10 25	18"	12"						2			sand-stone
		13 15								3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

SILT (ML) - dark brown (7.5YR 3/2); 90%. non-plastic to low plastic fines; 10%. fine sand; trace fine rounded gravel; ~~stiff~~; ~~wet~~. Roots observed throughout. ~~Bedrock~~ was encountered at about one foot bgs ~~(Poorly Graded Sand (SP))~~ - very pale brown (10YR 7/3); predominantly fine grained sand; strongly cemented; dry.

B-5-0.5 was collected at 1220 hours.

B-5-1.5 was collected at 1230 hours.

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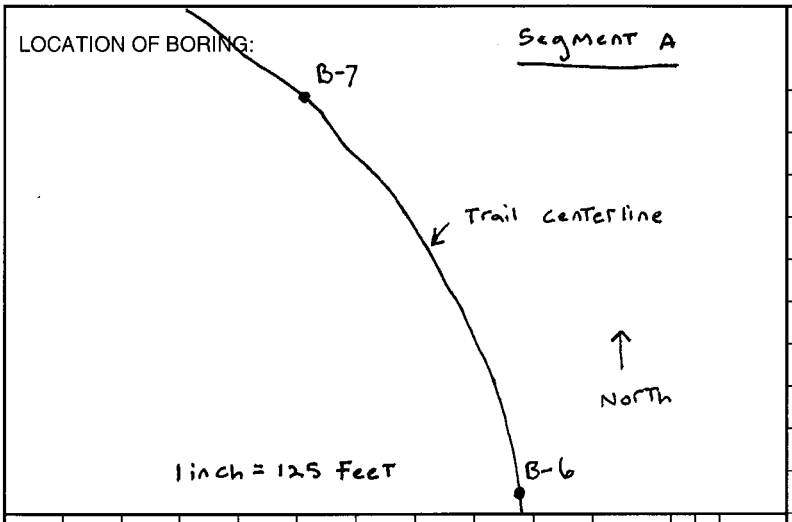
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-6
JOB NO.: 567.04.55	TOTAL DEPTH: ~~10~~ 10-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Sample was collected from drill cuttings	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1240 hours	DATE: 3/8/16
COMPLETED, TIME: 1300 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG	
		50 for 2"	2"	2"						0				Asphalt - 2 inches
													Bed-rock	Poorly Graded Sand (SP) - very pale brown (10YR7/3), predominantly fine sand, very dense; dry. Bedrock (chert) was encountered at about 4-inches below the ground surface.
										1				
										2				B-6-0.4 was collected at 1254 hours.
										3				
										4				
										5				
										6				
										7				
										8				
										9				
										10				

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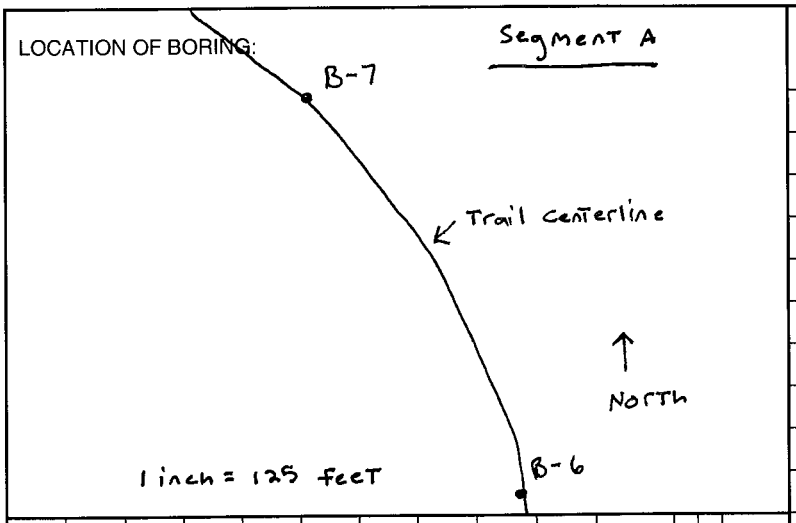
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-7
	TOTAL DEPTH: 12-inches
JOB NO.: 567.04,55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Sample was collected from drill cuttings.	
HAMMER WT.:	DROP:
STARTED, TIME: 1300 hours	DATE: 3/8/16
COMPLETED, TIME: 1320 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			Sand-stone
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt = 3 inches

Poorly Graded sand (SP) - very pale brown (10YR7/3), predominantly fine sand; very dense; dry.

Bedrock (sandstone) was encountered at a depth of 4-inches below the ground surface.

B-7-0.4 was collected at 1311 hours.

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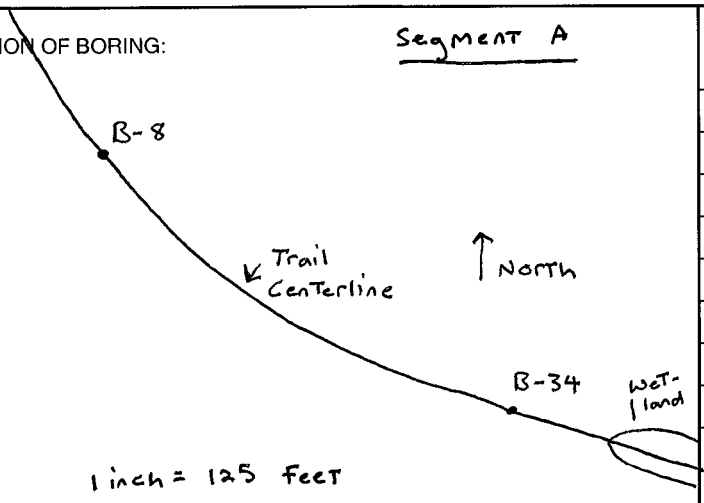
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-8
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California FeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Sample was collected from drill cuttings.	
HAMMER WT.:	DROP:
STARTED, TIME: 1355 hours	DATE: 3/8/16
COMPLETED, TIME: 1430 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			Bedrock
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt = 2.5"

Bedrock was encountered directly below the asphalt. The bedrock is composed of silty sand (SM) - brown (7.5YR4/2); 70% fine sand; 30% non-plastic fines; moist.

B-8-0.2 was collected at 1404 hours.

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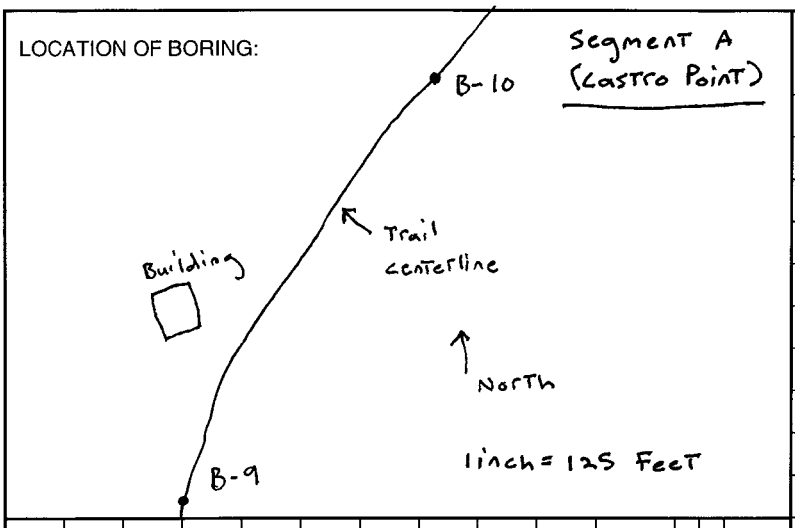
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-9
JOB NO.: 567.04,55	TOTAL DEPTH: 24-inches
PROJ. MGR.: B. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 0829 Hours	DATE: 3/10/16
COMPLETED, TIME: 0907 Hours	DATE: 3/10/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		15	18"	12"						1			sand-stone
		16											
		12								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt - 2"

3" Poorly Graded Sand (SP) - very dark gray (10YR3/1), predominantly medium sand, trace amounts of coarse sand, medium dense, moist.

Sandstone was encountered at approximately five inches bgs.

B-9-0.2 was collected at 0903 hours.

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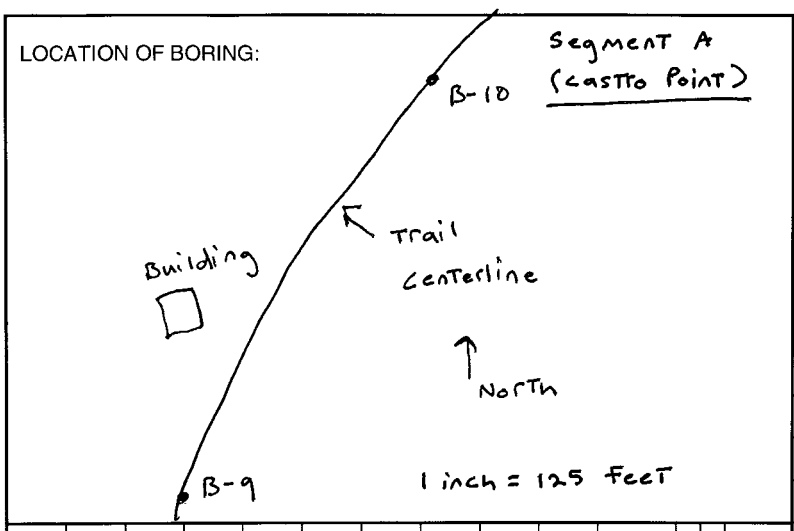
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-10
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 0907 hours	DATE: 3/10/16
COMPLETED, TIME: 0930 hours	DATE: 3/10/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		6	18"	9"						1			
		6											
		12								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

3" Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines.

Lean clay with sand (CL) - brown (7.5YR3); 85% low plastic fines; 15% fine sand; very stiff; moist.

B-10-0.5 was collected at 0922 hours.

B-10-1.5 was collected at 0927 hours.

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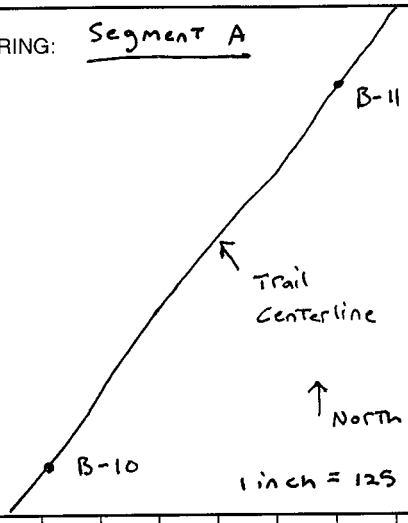
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-11
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 0930 hours	DATE: 3/10/16
COMPLETED, TIME: 1000 hours	DATE: 3/10/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME: DATE: BY:	
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		9	18"	9"						1			
		16											
		11								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

18" Poorly Graded Gravel (GP) - very dark gray (10YR3/1); predominantly fine rounded gravel up to two inches in length; trace amounts of non-plastic fines and fine sand; medium dense; wet.

6" Lean clay with sand (CL) - brown (7.5YR3); 85%, low plastic fines; 15% Fine sand; very stiff; moist.

B-11-0.5 was collected at 0949 hours.

B-11-1.5 was collected at 0949 hours.

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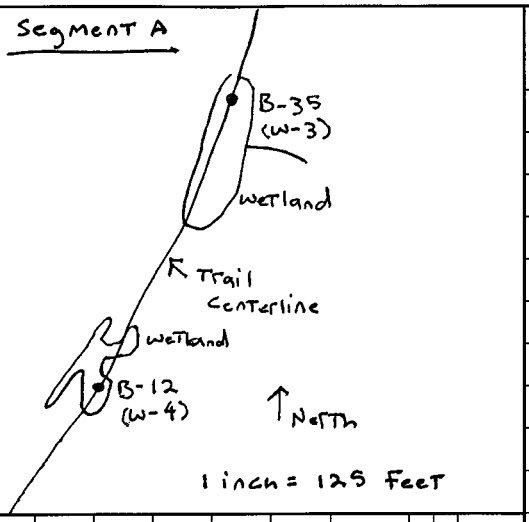
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-12
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1020 hours	DATE: 3/10/16
COMPLETED, TIME: 1100 hours	DATE: 3/10/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME: DATE: BY:	
SURFACE ELEV.:	DATUM:

CONDITIONS: Two holes were ~~drilled~~ advanced to 24-inches bgs. No recovery. Gravel extends from ground surface to at least ~~one foot~~ bgs. The gravel ranges from fine to coarse (up to 3-inches) in length.

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		10	18"	0						1			No Recovery
		18											
		14								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

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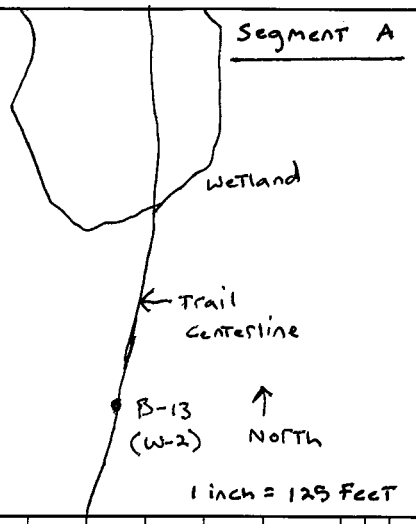
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-13
JOB NO.: 561.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech services, LLC	EDITED BY:
DRILL RIG TYPE: Superman	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1300 hours	DATE: 3/10/16
COMPLETED, TIME: 1410 hours	DATE: 3/10/16
BORING DEPTH (ft.) Two	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME: DATE: BY:	
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		9	18"	14"						1			
		12											
		20								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

8" Poorly Graded Gravel - very dark gray (10YR 3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines and fine sand; medium dense; wet.

Silty Sand (SM) - brownish yellow (10YR 5/6); 50% Fine sand; 30% non-plastic fines; medium dense; moist.

Sandstone - 2-Feet

B-13-0.5 was collected at 1356 hours.

B-13-1.5 was collected at 1400 hours

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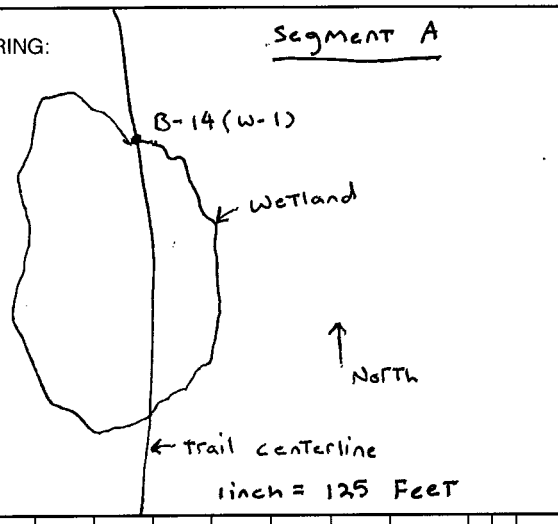
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-14
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal mod., SPT	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1500 hours	DATE: 3/8/16
COMPLETED, TIME: 1530 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		6 4	18"	18"						1			
		7 3	18"	18"						2			
		5 6								3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Fill

Silty sand with Gravel (SM) - brown (10YR 5/3), 50% Fine sand; 30% non-plastic fines; 20% Fine rounded gravel; medium dense; wet.

Lean clay (CL) - brown (10YR 5/3); predominantly low plasticity fines; stiff; wet. To medium

organic material such as roots were found throughout the sample intervals.

B-14-0.5 was collected at 1510 hours.

B-14-1.5 was collected at 1515 hours.

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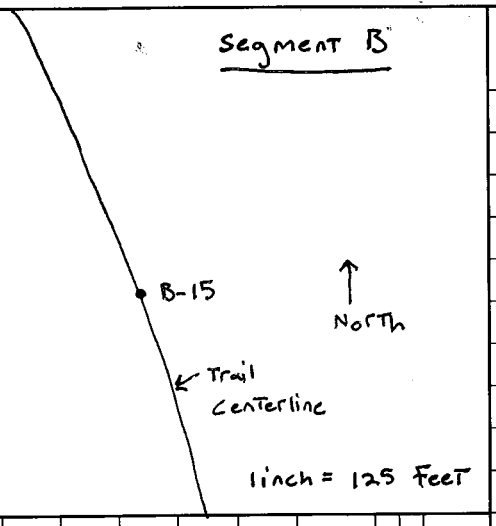
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-15
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California Geotech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1530 hours	DATE: 3/8/16
COMPLETED, TIME: 1615 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		22	18"	18"						1			
		12 11								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR 3/2) 50% fine rounded gravel; 30% non-plastic fines; 20% fine sand; moist.

Fat clay (CH) - very dark brown (10YR 2/2); predominantly high plastic fines; very stiff; moist.

B-15-0.5 was collected at 1547 hours.

B-15-1.5 was collected at 1552 hours.

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FIELD LOG OF BORING

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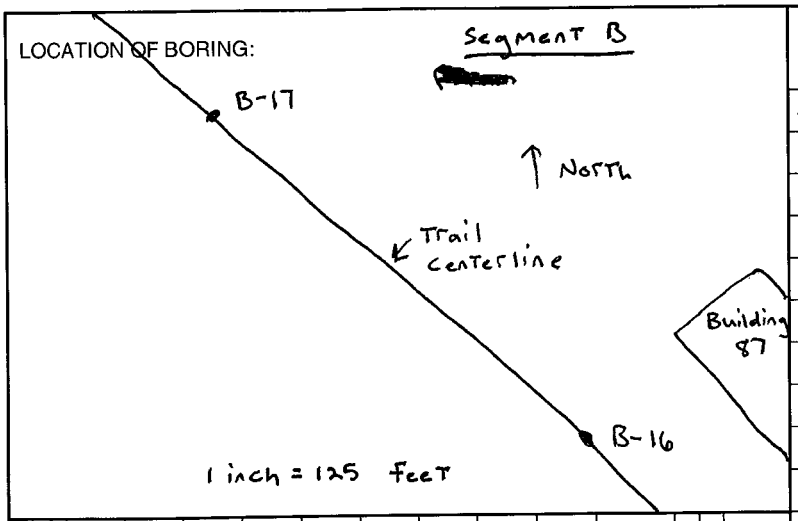

PROJECT: EBRPD SF Bay Trail	BORING NO.: B-16
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California FeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1630 hours	DATE: 3/8/16
COMPLETED, TIME: 1700 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		4 9 9	18"	18"						1			
		9 7								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR 3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; wet.

Fat clay (CH) - very dark brown (10YR 2/2); predominantly high plastic fines; very stiff; moist.

B-16-03 was collected at 1636 hours.

D-16-1.5 was collected at 1640 hours.

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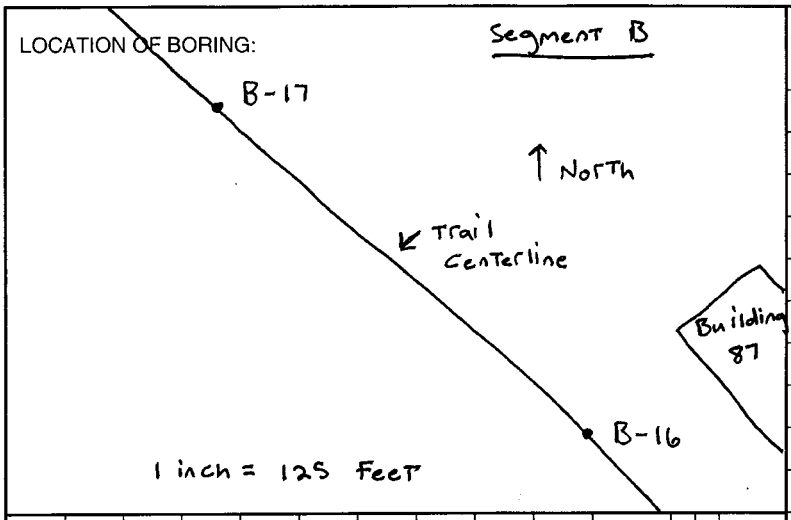
FIELD LOG OF BORING

Sheet 1 of 1



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-17
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal. Modified	
HAMMER WT.: 140 lbs	DROP:
STARTED, TIME: 0830 hours	DATE: 3/9/16
COMPLETED, TIME: 0859 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		11	18"	14"						1			
		22 20								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt - 3"

Baserock - 2" (Silty Gravel (GM) - very dark grayish brown (10YR 3/2); fine rounded gravel; trace non-plastic fines and fine sand; moist.

Silty Clay with Gravel (CL-ML) - brown (7.5YR 5/3); 50% low plastic fines; 30% non-plastic fines; 20% fine rounded gravel; hard; moist.

B-17-0.5 was collected at 0843 hours.

B-17-1.5 was collected at 0846 hours.

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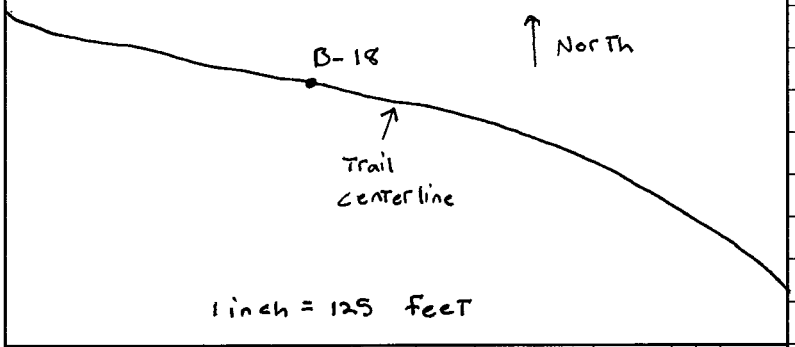
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-18
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 0910 hours	DATE: 3/9/16
COMPLETED, TIME: 0930 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		15 13 19 42	18"	17"						1 2 3 4 5 6 7 8 9 10			

Silty clay with Gravel (cl-ml) - brown (7.5YR5/3), 40%. low plastic fines; 30% non-plastic fines; 30%. Fine rounded gravel; hard; wet.

B-18-0.5 was collected at 0924 hours.

B-18-1.5 was collected at 0929 hours.

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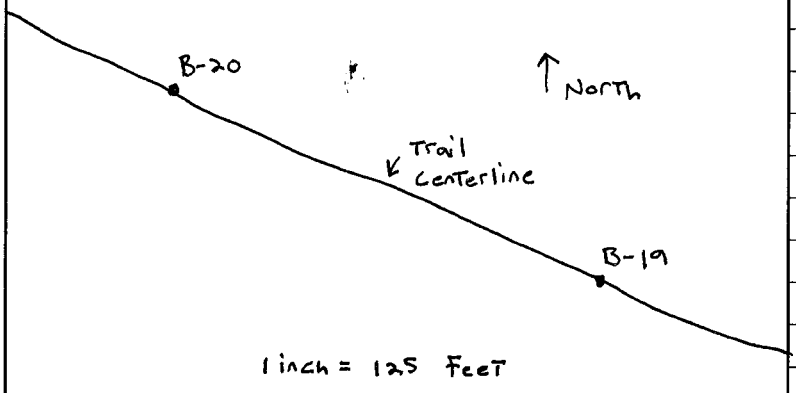
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-19
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Cal. Mod.	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 0934 hours	DATE: 3/9/16
COMPLETED, TIME: 1000 hours	DATE: 3/9/16

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		[redacted] 10	[redacted] 18"	[redacted] 15"						1			
		[redacted] 11 30								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) - very dark grayish brown (10YR 3/2); 80% Fine rounded gravel; 20% non-plastic to low plastic fines; hard; wet. 5"

Silty clay with Gravel (CL-ML) - brown (7.5YR 5/3); 50% low plastic fines; 30% non-plastic fines; 20% Fine rounded gravel; hard; moist.

B-19-0.5 was collected at 0956 hours.

B-19-1.5 was collected at 0959 hours.

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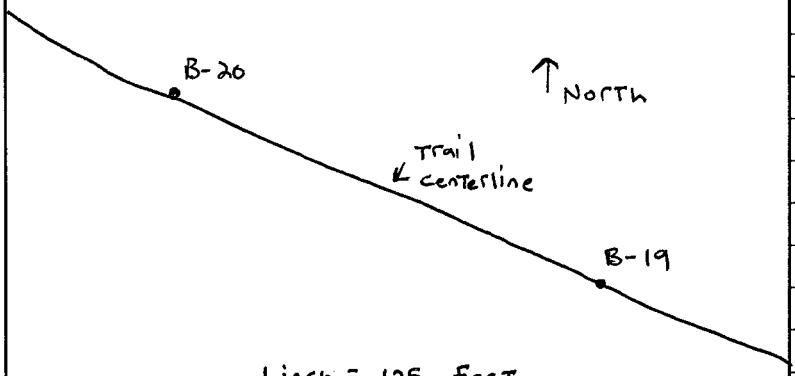
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-20
	TOTAL DEPTH: 24- inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1000 hours	DATE: 3/9/16
COMPLETED, TIME: 1030 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		[illegible] [illegible] 16								1			Asphalt-3" Base[illegible] Silty clay with Gravel (CL/ML) - brown (7.5YR3/3), 50%, low plastic fines, 30% non-plastic fines, 20% fine rounded gravel, hard, moist.
		36 [illegible] 20								2			Sandstone
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Sandstone was encountered at one foot bgs.

B-20-0.3 was collected at 1026 hours.

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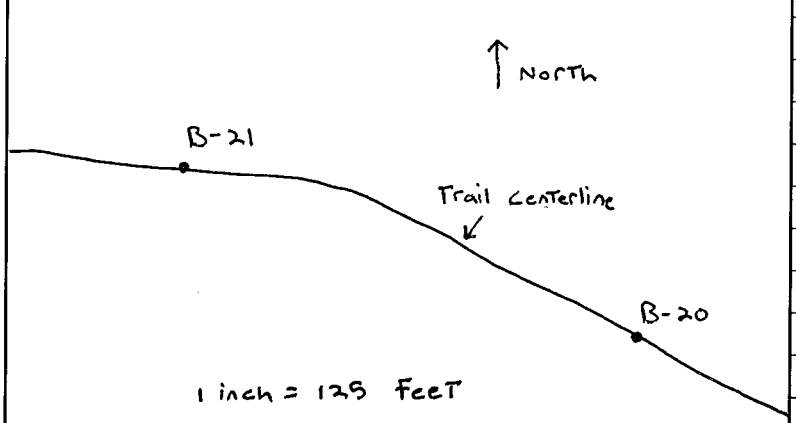
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-21
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: B. Shafer	EDITED BY:
DRILLING CONTRACTOR: California Geotech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1036 hours	DATE: 3/9/16
COMPLETED, TIME: 1100 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		11	18"	16"						1			
		18											
		26								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) – very dark grayish brown (10YR3/2); 80%. fine rounded gravel; 20%. non-plastic Fines; hard; wet. Plant roots observed from ground surface to about six inches bgs.

B-21-0.5 was collected at 1045 hours.

B-21-1.5 was collected at 1048 hours.

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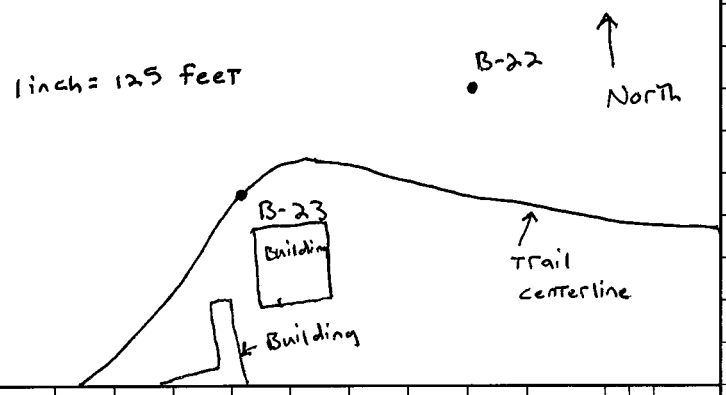
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B (Drum lot #1)



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-22
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1101 hours	DATE: 3/9/16
COMPLETED, TIME: 1120 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		34	18"	15"									
		31											
		37								1			sand-stone
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) - very dark grayish brown (10YR 3/2); 80% fine rounded gravel; 20% non-plastic fines; hard; wet.

Sandstone was encountered at a depth of approximately 10-inches bgs.

B-22-0.4 was collected at 1109 hours.

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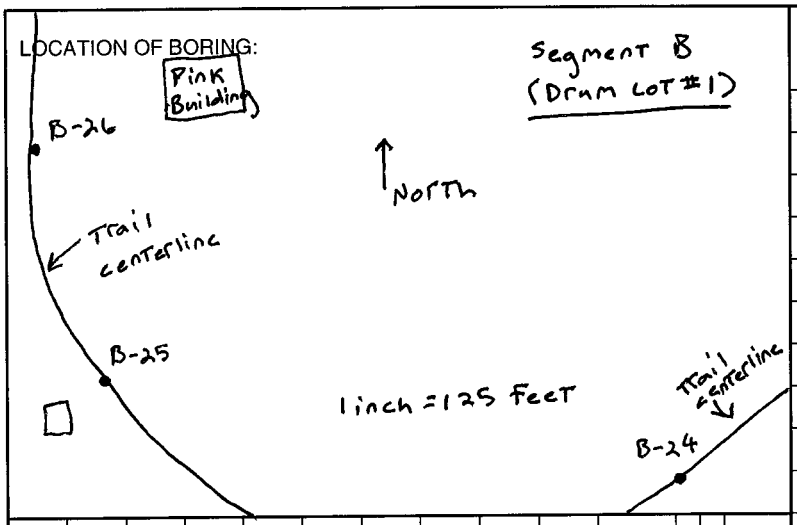
FIELD LOG OF BORING

Sheet 1 of 1



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-24
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1411 hours	DATE: 3/9/16
COMPLETED, TIME: 1440 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		40 40 40	18"	14"						1			Sand-stone
		30 30 32								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt - 3"

2" Poorly Graded Sand with Gravel (SP) - very dark gray (10YR 3/1); 70% fine sand, 30% fine gravel; very dense, moist.

Sandstone was encountered at a depth of approximately 5-inches bgs.

B-24-0.3 was collected at 1429 hours.

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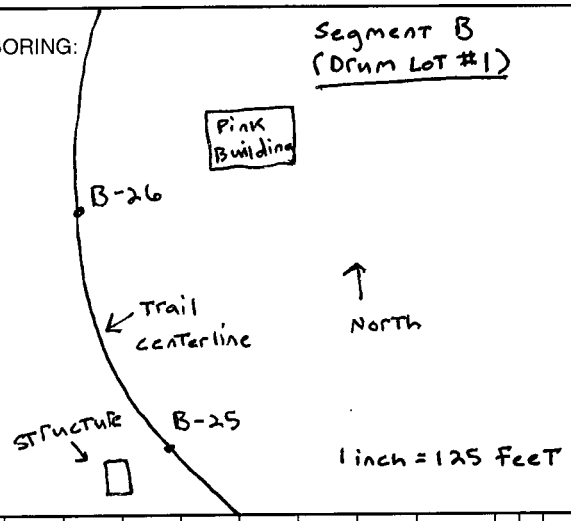
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-25
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1335 hours	DATE: 3/9/16
COMPLETED, TIME: 1400 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS: 3"	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		[illegible]	[illegible]	[illegible]									
		4 12 25	18"	12"						1			
		25 [illegible] 19								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Poorly Graded Gravel with Sand (GP) - very dark gray (10YR3/1); 55% fine rounded gravel; 45% fine to medium sand.

Silty Gravel with Sand (GM) - brown (7.5YR5/3); 50% fine rounded gravel; 30% non-plastic fines; 20% fine sand; dense; wet.

B-25-0.5 was collected at 1354 hours.

B-25-1.5 was collected at 1358 hours.

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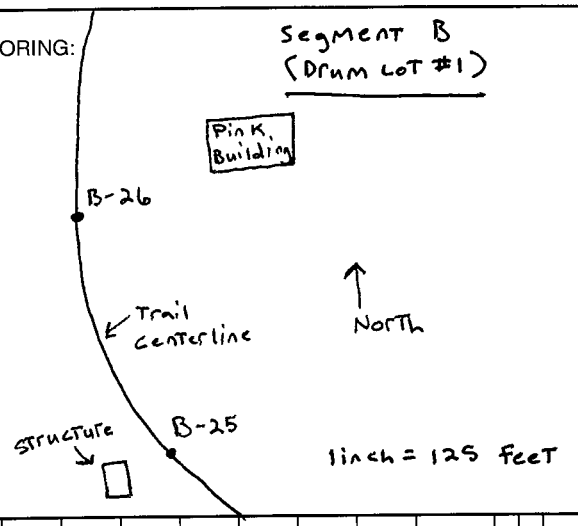
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-26
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1813 hours	DATE: 3/9/16
COMPLETED, TIME: 1340 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME: DATE: BY:	
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE	DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		30 50for 6"	12"	7"			1			Sand-stone

Silty Gravel (Fm) - ~~brown~~ brown (7.5YR5/3); 70% Fine rounded gravel; 20% non-plastic Fines; 10% fine sand; very dense; wet.

Sandstone was encountered at a depth of approximately 12-inches bgs.

B-26-0.5 was collected at 1329 hours.

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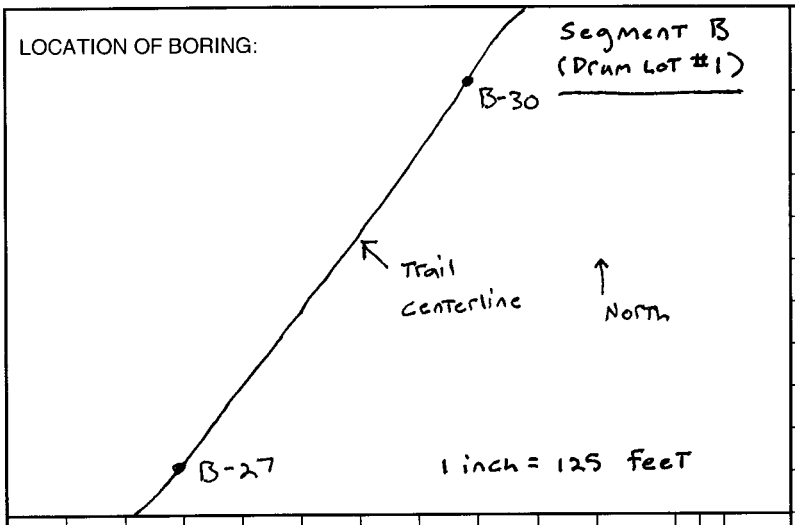
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-27
JOB NO.: 567.04.55	TOTAL DEPTH: 24 - inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1242 hours	DATE: 3/9/16
COMPLETED, TIME: 1310 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		15											
	16	18	18"	18"						1			
	18	14								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - brown (7.5YR5/3); 50% Fine rounded gravel; 30% non-plastic fines; 20% Fine sand; dense; wet.

B-27-0.5 was collected at 1255 hours.

B-27-1.5 was collected at 1258 hours.

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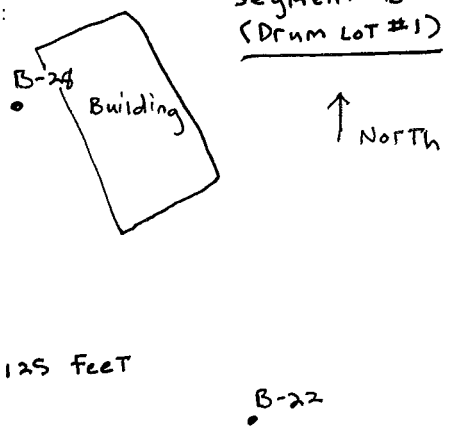
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-28
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California FeoTech Services, LLC	
DRILL RIG TYPE: Truck mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1130 hours	DATE: 3/9/16
COMPLETED, TIME: 1150 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		20	17"	10"						0			1/9
		23											Sand-stone
		50 for 5"								1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (Fm) - very dark grayish brown (10YR 3/2); 80%. Fine rounded gravel; 20%. non-plastic fines; hard; wet.

Sandstone was encountered at a depth of approximately 6 six inches bgs.

B-28-0.3 was collected at 1144 hours.

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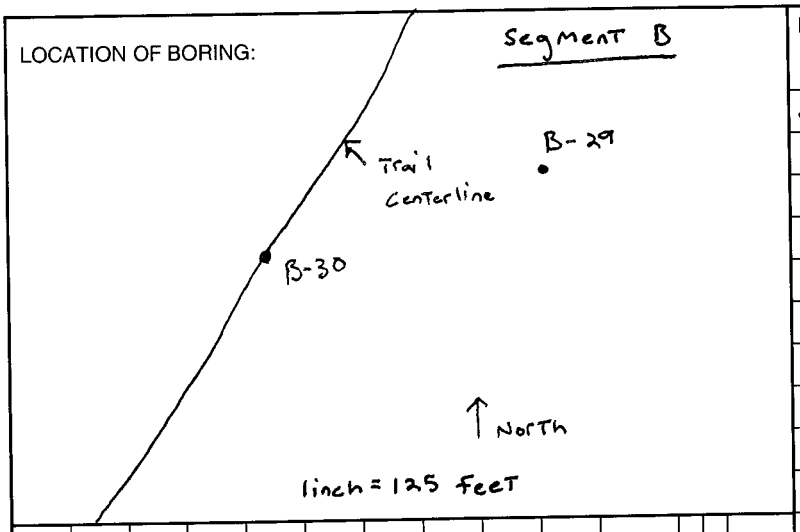
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-29
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: chris veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1150 hours	DATE: 3/9/16
COMPLETED, TIME: 1215 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE	DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		31	18"	14"			0			GM
		30								sand-stone
		39					1			
							2			
							3			
							4			
							5			
							6			
							7			
							8			
							9			
							10			

Silty Gravel (GM) - very dark grayish brown (10YR3/2); 80% fine rounded gravel; 20% non-plastic to low plastic fines; hard, wet.

Sandstone was encountered at a depth of approximately six inches bgs.

B-29-0 was collected at 1212 hours

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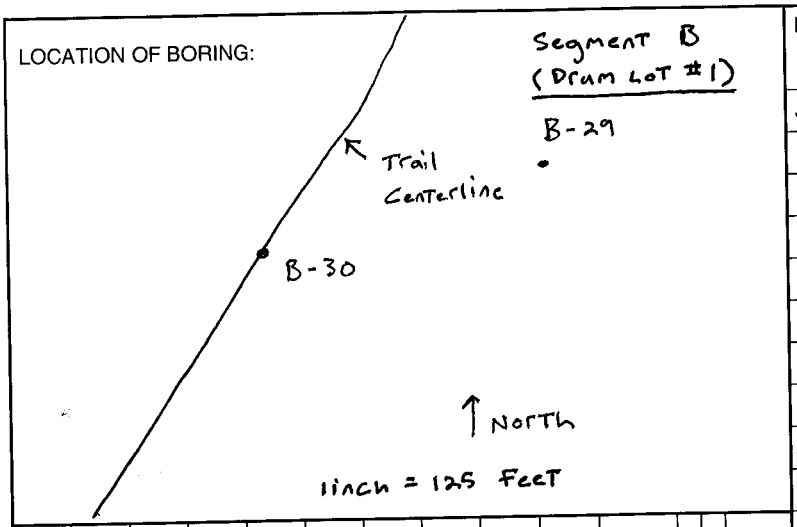
FIELD LOG OF BORING

Sheet 1 of 1



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-30
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1218 hours	DATE: 3/9/16
COMPLETED, TIME: 1240 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		4 6	18"	18"						1			
		7 8								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (FM) - brown (7.5YR5/3); 70% fine rounded gravel; 30% non-plastic to low plastic fines; medium dense; wet.

B-30-0.2 was collected at 1233 hours.

B-30-1.5 was collected at 1237 hours.

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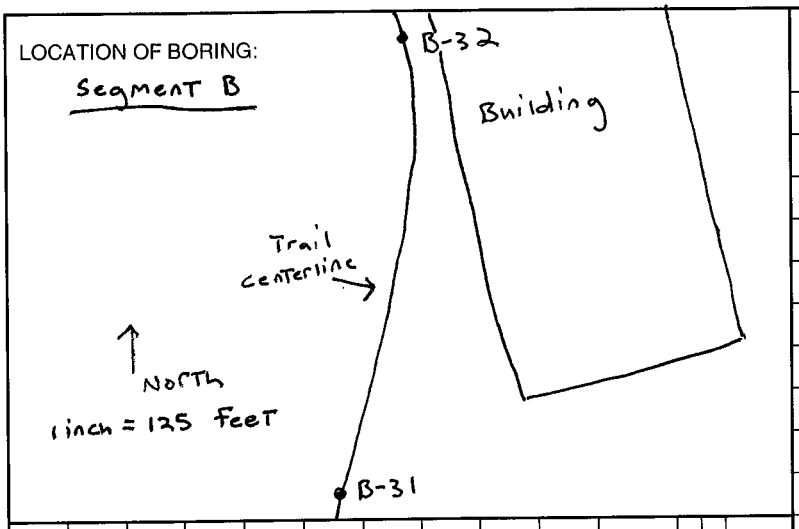
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-31
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1510 hours	DATE: 3/9/16
COMPLETED, TIME: 1530 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE	DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		16 33 35	18"	14"			1 2 3 4 5 6 7 8 9 10			

3"
Silty sand (SM) - very dark gray (10YR3/1); 30% non-plastic fines and organic matter; 20% fine sand; very dense; wet.

Silty Gravel with sand (GM) - brown (7.5YR5/3); 50% fine rounded gravel; 30% non-plastic fines; 20% fine sand; very dense; wet.

B-31-0.5 was collected at 1515 hours.

B-31-1.5 was collected at 1520 hours.

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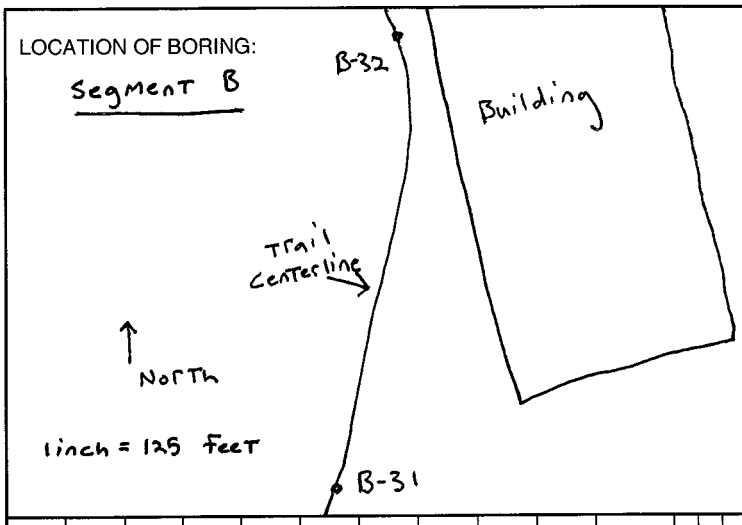
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-32
	TOTAL DEPTH: 24-inches
JOB NO.: 567-04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1533 hours	DATE: 3/9/16
COMPLETED, TIME: 1550 hours	DATE: 3/9/16

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		12	18"	5"						1			
		10											
		9								2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

2.5" Asphalt

Poorly Graded Gravel with Sand (FM) - very dark gray (10YR3/1); 80% Fine subrounded gravel; 20% Fine to medium sand; medium dense; moist.

B-32 - 1.5 was collected at 1540 hours.

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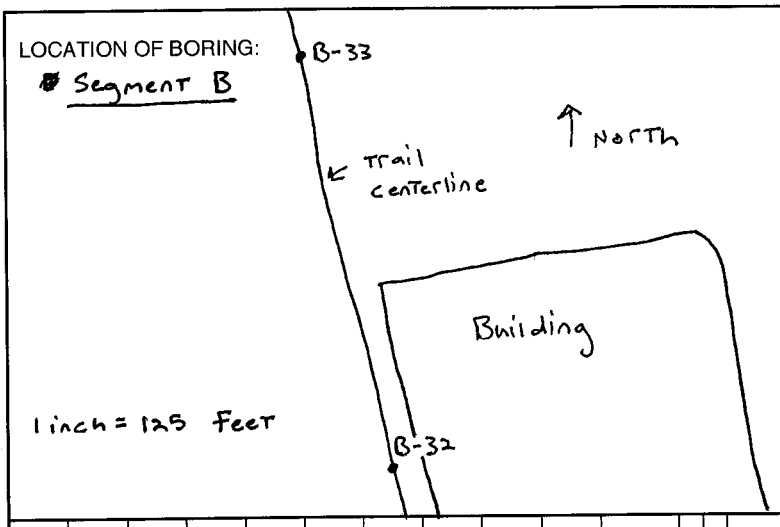
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-33
	TOTAL DEPTH: 24-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California FeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: Sample was collected from drill cuttings.	
HAMMER WT.: N/A	DROP:
STARTED, TIME: 1610 hours	DATE: 3/9/16
COMPLETED, TIME: 1630 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			P
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Sandy SILT (ML) - brown (7.5YR5/3); ~80% non-plastic fines; 20% Fine sand; moist. Asphalt Layer encountered at approximately one-Foot bgs.

B-33-0.2 was collected at 1623 hours.

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FIELD LOG OF BORING

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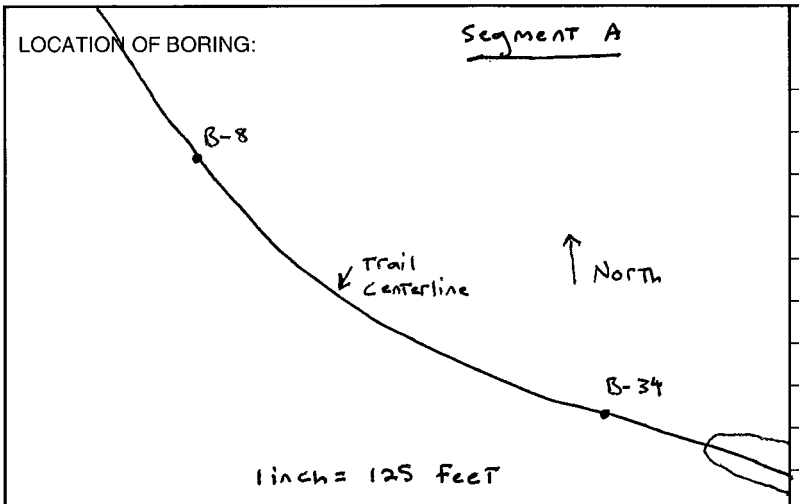
LOCATION OF BORING: Segment A



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-34
	TOTAL DEPTH: 12 inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1321 hours	DATE: 3/8/16
COMPLETED, TIME: 1350 hours	DATE: 3/8/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		47 50 for 3"	9"	9"						0 1 2 3 4 5 6 7 8 9 10			

Asphalt = 2.5"

Silty sand (SM) - brown (7.5YR4/2); 70%. Fine sand; 15% non-plastic fines; 5% fine rounded gravel; very dense; moist.

Bedrock was encountered at around 10- to 11-inches below the ground surface.

B-34-0.5 was collected at 1341 hours.

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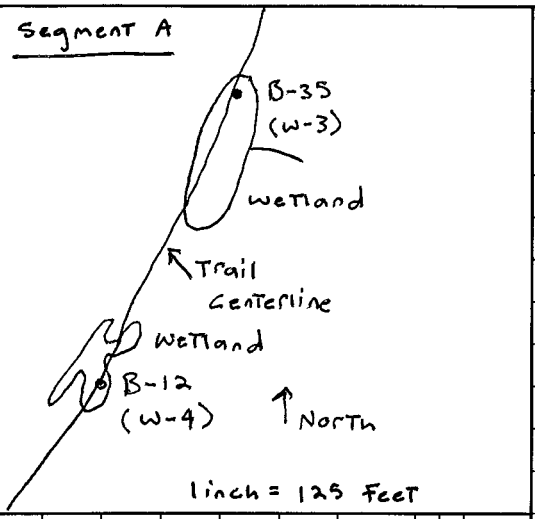
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING: Segment A



PROJECT: # EBRPD SF Bay Trail	BORING NO.: B-35
JOB NO.: 567.04.55	TOTAL DEPTH: 24-inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: California GeoTech Services, LLC	EDITED BY:
DRILL RIG TYPE: Superman	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1200 hours	DATE: 3/10/16
COMPLETED, TIME: 1254 hours	DATE: 3/10/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE	DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		18	18"	14"			1			
		14								
		36					2			Sand-stone
							3			
							4			
							5			
							6			
							7			
							8			
							9			
							10			

10" Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel up to two inches in length; Trace amounts of non-plastic fines and fine sand; medium dense, wet.

Clayey Silt with Sand (ML-CL) - grayish brown (10YR5/2); 45% non-plastic fines; 40% low plastic fines; hard; wet.

*Sandstone was encountered at approximately 16-inches bgs.

B-35-0.8 was collected at 1244 hours.

B-35-1.5 was collected at 1249 hours.

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FIELD LOG OF BORING

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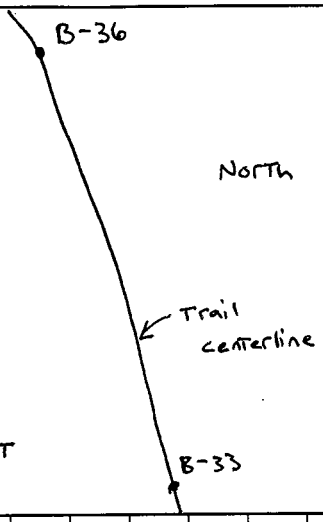
LOCATION OF BORING: Segment B



PROJECT: EBRPD SF Bay Trail	BORING NO.: B-36
	TOTAL DEPTH: 24-inches
JOB NO.: 567.09.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: California GeoTech Services, LLC	
DRILL RIG TYPE: Truck Mounted B-24	
DRILLER'S NAME: Chris Veni	
SAMPLING METHODS: California Modified	
HAMMER WT.: 140 pounds	DROP:
STARTED, TIME: 1645 hours	DATE: 3/9/16
COMPLETED, TIME: 1700 hours	DATE: 3/9/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME: DATE: BY:	
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE	DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
		4								
		4	18"	18"			1			
		6								
		12					2			Sandstone
							3			
							4			
							5			
							6			
							7			
							8			
							9			
							10			

3" silty Gravel (GM) - brown (7.5YR5/3); 70% fine rounded gravel; 30% non-plastic fines; wet.

12" clayey Gravel (GC) - same as above except clay instead of silt.

3" silty Gravel (GM) - yellowish brown (10YR 5/6); 40% non-plastic fines; 40% fine rounded gravel; medium dense; moist.

Sandstone was encountered at approximately 18-inches bgs.

B-36-0.5 was collected at 1646 hours.

B-36-1.5 was collected at 1653 hours.

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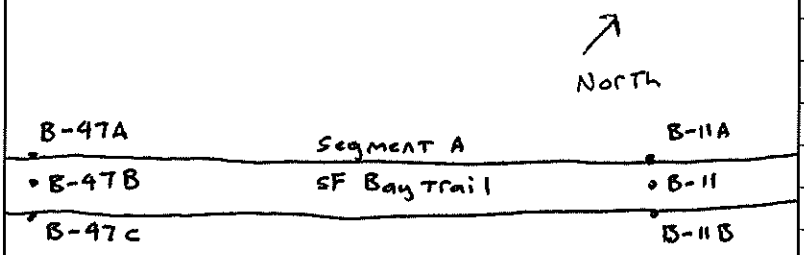
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 98+50
Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-11A
JOB NO.: 567.04, 55	TOTAL DEPTH: 2- Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1415 hours	DATE: 5/31/16
COMPLETED, TIME: 1420 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG
			24	24						0		
										1		
										2		
										3		
										4		
										5		
										6		
										7		
										8		
										9		
										10		

(2-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry,

Lean clay with sand (CL) - brown (7.5YR3); 85% low plastic fines; 15% fine sand; very stiff; moist

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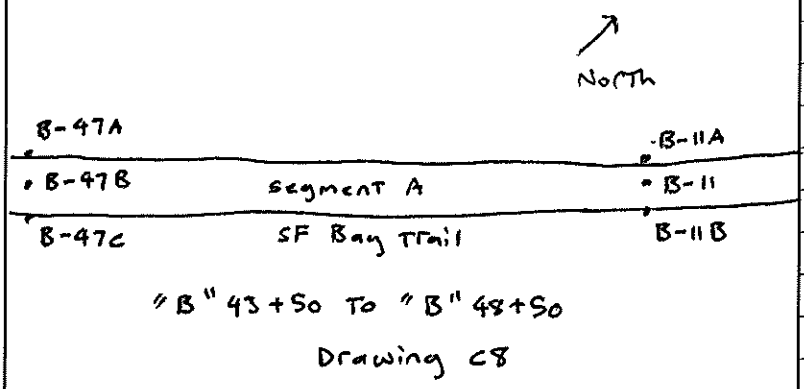
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50

Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-11B
	TOTAL DEPTH: 2 - Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1420 hours	DATE: 5/31/16
COMPLETED, TIME: 1424 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	19						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(3-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Lean clay with Sand (CL) - brown (7.5YR5), 85% low plastic fines; 15% fine sand; very stiff; moist.

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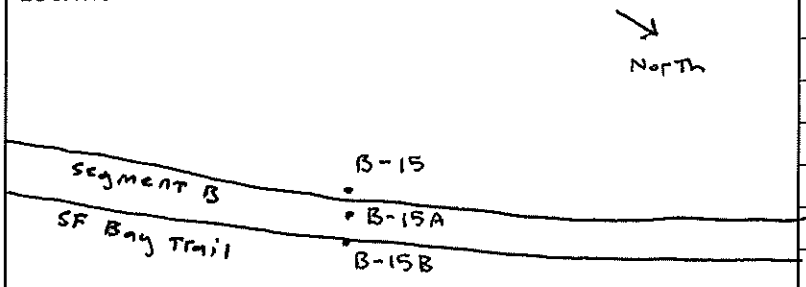
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 63+50 To "B" 68+50

Drawing c12

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-15A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1239 hours	DATE: 5/31/16
COMPLETED, TIME: 1245 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	16						0			100%
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

Fat Clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff; moist.

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FIELD LOG OF BORING

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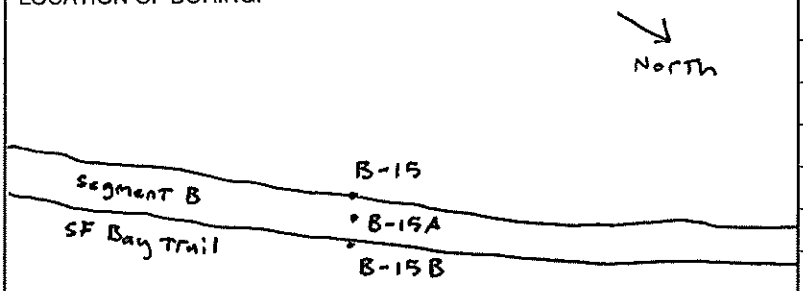
LOCATION OF BORING:



"B" 63+50 To "B" 68+50

Drawing C12

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-15B
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1230 hours	DATE: 5/31/16
COMPLETED, TIME: 1239 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE			DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18					0			
									1			
									2			
									3			
									4			
									5			
									6			
									7			
									8			
									9			
									10			

Silty Gravel with sand (GM) - very dark grayish brown (10YR3/2); 30%. non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

Fat clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff; moist.

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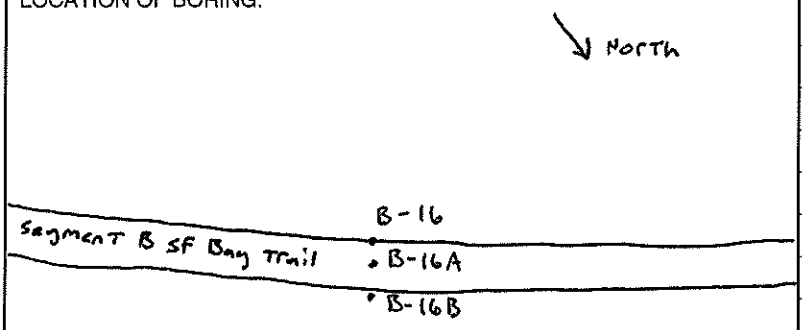
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 69+50 To "B" 73+50

Drawing C13

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-16A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R, Shaffer	LOGGED BY: B. Bardsley
	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1213 hours	DATE: 5/31/16
COMPLETED, TIME: 1216 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG	
			24	15						0			Silty Gravel with sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose dry.
										1			Fat clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff; moist.
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

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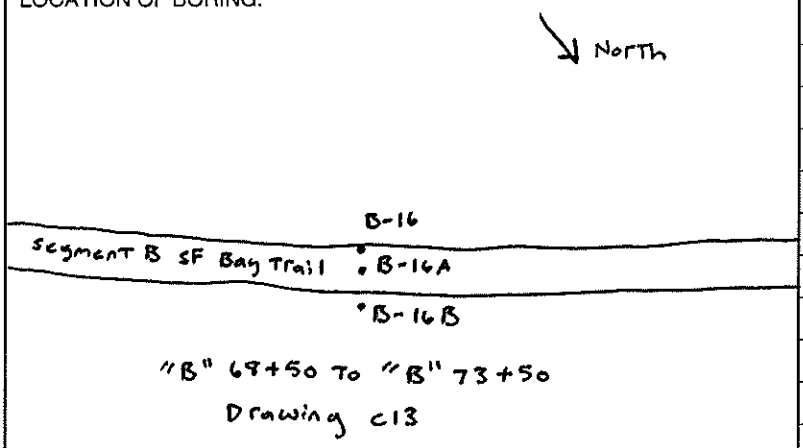
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-16B
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1209 hours	DATE: 5/31/16
COMPLETED, TIME: 1211 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	19						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR 3/2), 30% non-plastic fines, 20% fine sand, 50% fine rounded gravel, loose, dry.

Fat Clay (CH) - very dark brown (10YR 2/2), predominantly high plastic fines, very stiff, moist.

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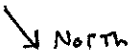
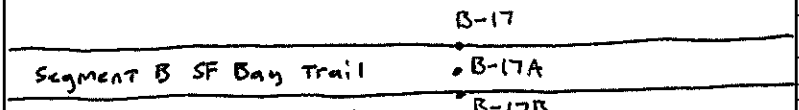
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:





PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-17A
JOB NO.: 567.04.55	TOTAL DEPTH: 2- Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1200 hours	DATE: 5/31/16
COMPLETED, TIME: 1205 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG	
			24	16						0			Asphalt (3-inches) Baserock (2-inches)
										1			Silty clay with Gravel (CL-ML) - brown (7.5YR5/3); 90% non-plastic to low plastic fines; 20% fine rounded gravel; hard; moist.
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

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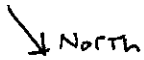
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



B-17

Segment B SF Bay Trail • B-17A

• B-17B

"B" 68+50 To "B" 73+50

Drawing C13

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-17B
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1156 hours	DATE: 5/31/16
COMPLETED, TIME: 1200 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	16						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (3-inches)
Baserock (2-inches)
Silty clay with Gravel (CL-ML) - brown (7.5YR 5/3), 80% non-plastic to low plastic fines; 20% Fine rounded gravel; hard; moist.

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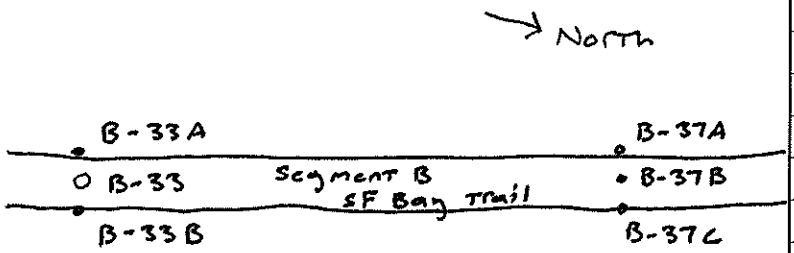
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50
Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-33A
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1031 hours	DATE: 5/31/16
COMPLETED, TIME: 1040 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (one inch)

Silt with sand (ML) - brown (7.5YR5/3); 80% non-plastic fines; 15% fine sand; 5% fine rounded gravel; soft to medium stiff; dry.

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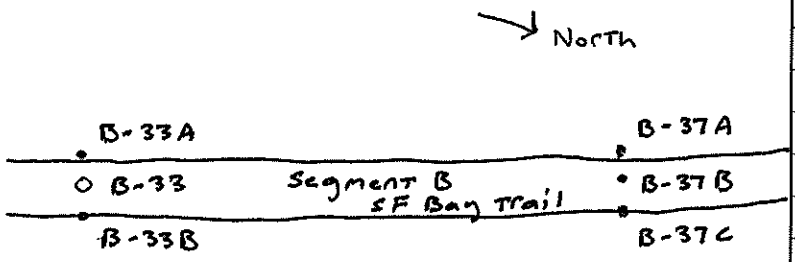
FIELD LOG OF BORING

Sheet _____ of _____

LOCATION OF BORING:



"B" 128+50 to "B" 133+50

Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-33B
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1025 hours	DATE: 5/31/16
COMPLETED, TIME: 1030 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

silt with Sand (ML) - brown (7.5YR 5/3); 85% non-plastic fines; 15% fine Sand; soft to medium stiff; dry.

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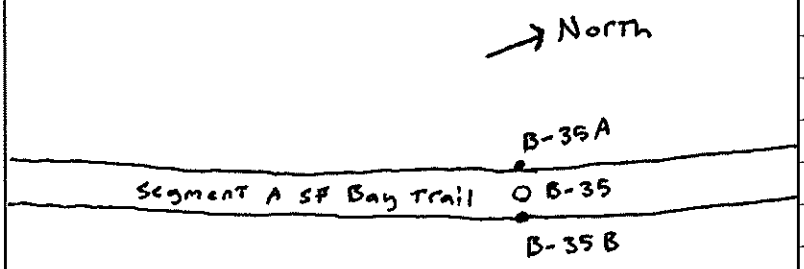
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 48+50 To "B" 53+50
Drawing C9

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-35A
	TOTAL DEPTH: 15-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE:	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Hand Auger	
HAMMER WT.:	DROP:
STARTED, TIME: 0952 hours	DATE: 6/1/16
COMPLETED, TIME: 1000 hours	DATE: 6/1/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG
										1		
										2		
										3		
										4		
										5		
										6		
										7		
										8		
										9		
										10		

Poorly Graded Gravel (GP) - very dark gray (10YR3/1); predominantly fine rounded gravel; Trace amounts of non-plastic fines; dry.

Lean clay (CL) - grayish brown (10YR5/2); predominantly low plastic fines; stiff; moist.

Bedrock was encountered at approximately 15-inches bgs.

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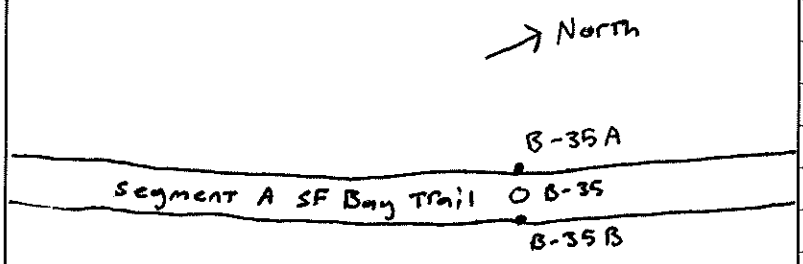
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 48+50 To "B" 53+50
Drawing C9

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-35B
	TOTAL DEPTH: 15-inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE:	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Hand Auger	
HAMMER WT.:	DROP:
STARTED, TIME: 0944 hours	DATE: 6/1/16
COMPLETED, TIME: 0951 hours	DATE: 6/1/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(8-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Lean clay (CL) - grayish brown (10YR5/2); predominantly low plastic fines; stiff; moist.

Bedrock was encountered at approximately 15-inches bgs.

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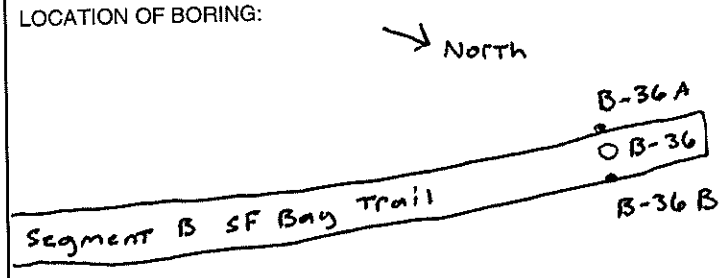
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50

Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-36A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 0959 hours	DATE: 5/31/16
COMPLETED, TIME: 0959 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	24						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) - brown (7.5YR5/3); 30% non-plastic fines; 70% fine rounded gravel; medium dense; dry. Bedrock was encountered at approximately 18-inches bgs.

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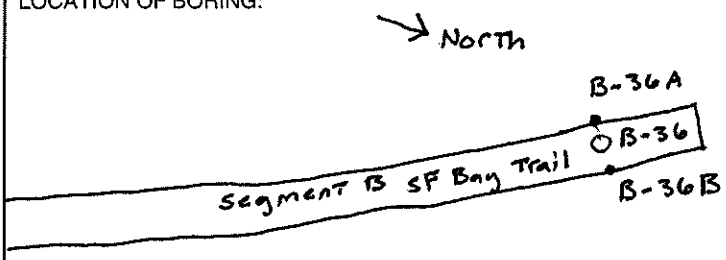
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50
Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-36B
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 0945 hours	DATE: 5/31/16
COMPLETED, TIME: 0955 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18"						1			SS
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) - brown (7.5YR 5/3); 70% fine rounded gravel; 30% non-plastic fines; medium dense; dry. Bedrock was encountered at approximately 18-inches bgs.

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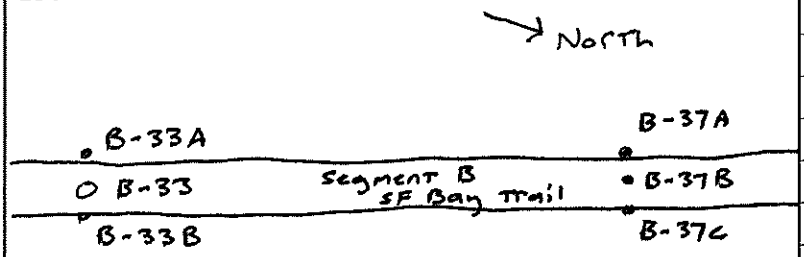
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50
Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-37A
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1018 hours	DATE: 5/31/16
COMPLETED, TIME: 1024 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) - brown (7.5YR5/3); 40% non-plastic Fines; 60% fine rounded gravel; medium dense; dry.

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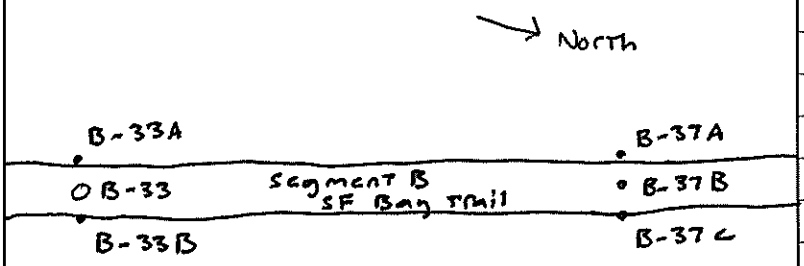
FIELD LOG OF BORING

Sheet _____ of _____

LOCATION OF BORING:



"B" 128+50 to "B" 133+50
Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-37B
JOB NO.: 567.04, 55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1004 hours	DATE: 5/31/16
COMPLETED, TIME: 1012 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	24						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silt with sand (ML) - brown (7.5YR 5/3); ~~[illegible]~~ 90% non-plastic fines; 20% fine sand; medium stiff; dry.

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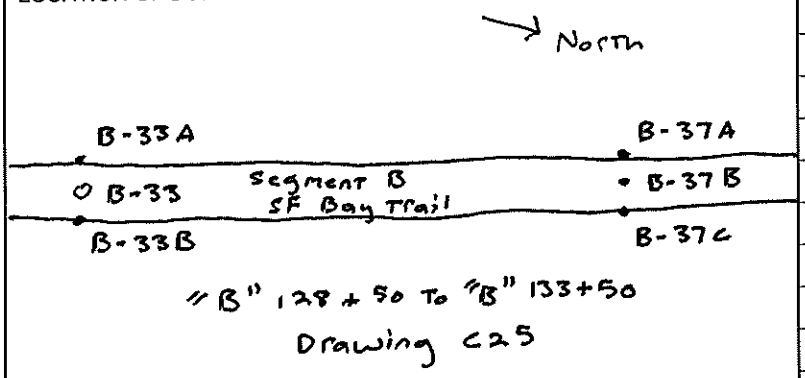
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50

Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-37C
	TOTAL DEPTH: 2 - Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1012 hours	DATE: 5/31/16
COMPLETED, TIME: 1018 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
				24	24					1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silt with sand (ML) - brown (7.5YR5/3); 85% non-plastic fines; 15% fine sand; medium stiff; dry.

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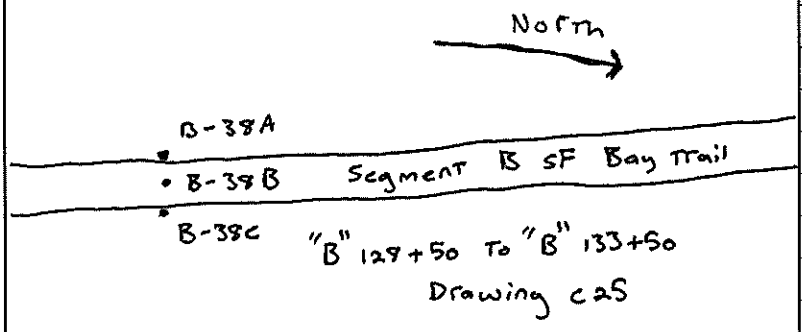
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-38A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: B. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1100 hours	DATE: 5/31/16
COMPLETED, TIME: 1110 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (3-inches)

Silt with Sand (ML) - brown (7.5YR 5/3); 80%. non-plastic fines; 20% fine sand; medium stiff; dry.

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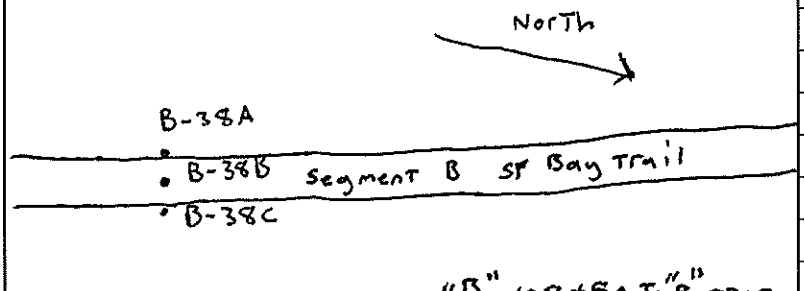
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50
Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-38B
	TOTAL DEPTH: 2 - Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1055 hours	DATE: 5/31/16
COMPLETED, TIME: 1100 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (one inch)

Silt with sand (ML) - brown (7.5YR5/3); 80%. non-plastic fines; 20% fine sand; medium ~~dense~~ stiff; dry.

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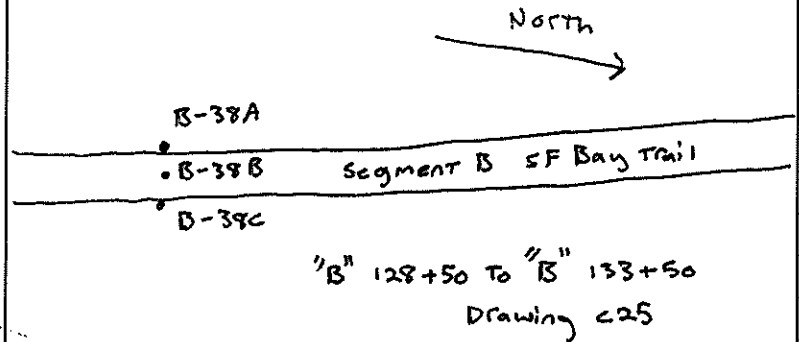
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 128+50 To "B" 133+50
Drawing C25

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-38C
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.: 1093 hours	DROP: 5/31/16
STARTED, TIME: 1052 hours	DATE: 5/31/16
COMPLETED, TIME:	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG	
			24	18						0				Asphalt (4-inches thick) Wood (one inch)
										1				Silt with Sand (ML) - brown (7.5YR 5/3); 80% non-plastic fines; 20% fine sand; soft to medium stiff; dry.
										2				
										3				
										4				
										5				
										6				
										7				
										8				
										9				
										10				

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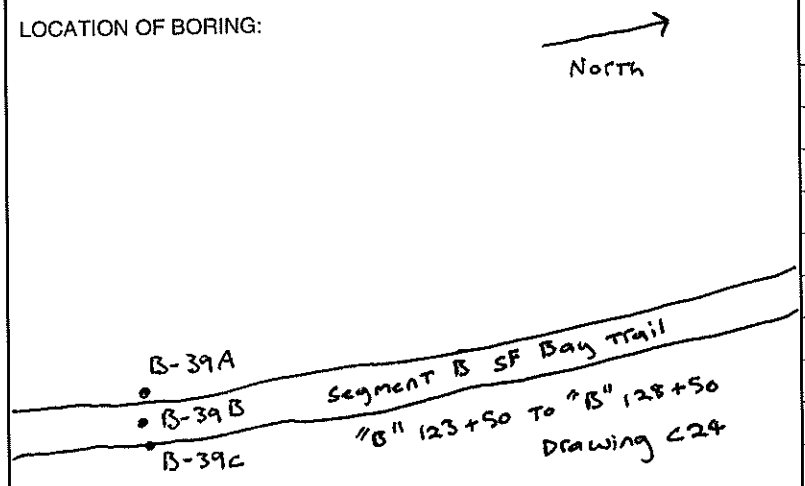
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-39A
JOB NO.: 567.04.55	TOTAL DEPTH: 2 - Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1120 hours	DATE: 5/31/16
COMPLETED, TIME: 1125 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0		
										1		
										2		
										3		
										4		
										5		
										6		
										7		
										8		
										9		
										10		

Silty Gravel with Sand (GM) - brown (7.5YR5/3); 50% fine rounded gravel; 30% non-plastic fines; 20% fine sand; dense; dry.

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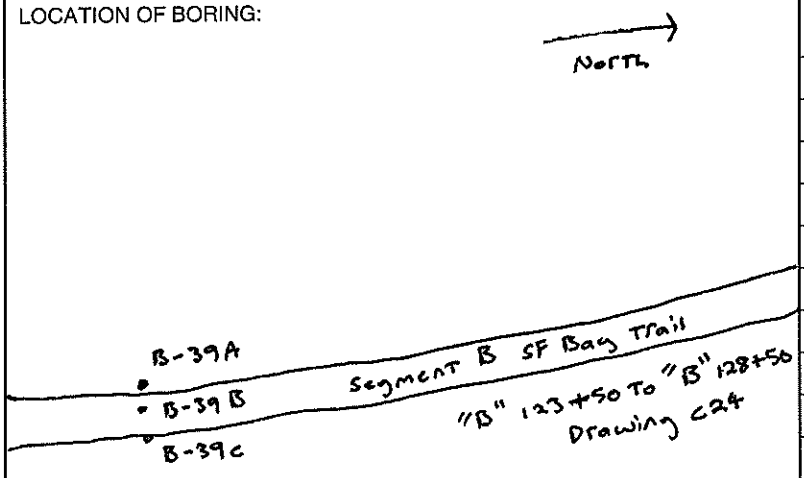
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-39B
	TOTAL DEPTH: 2 - Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1116 hours	DATE: 5/31/16
COMPLETED, TIME: 1120 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG	
			24	18						1			Silty sand (SM) - very dark gray (10YR 3/1); 30% non-plastic fines; 70% fine sand; dense; dry.
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

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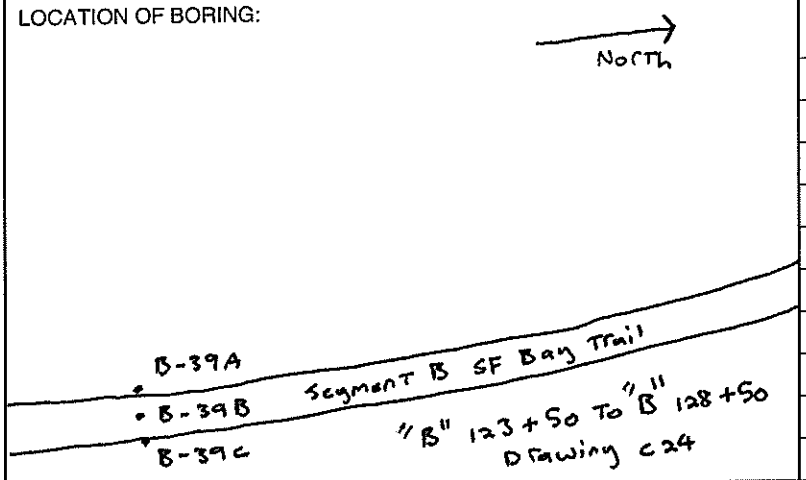
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-39C
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1110 hours	DATE: 5/31/16
COMPLETED, TIME: 1116 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG	
			24	20						0			Silty Sand (SM) - very dark gray (10YR 3/1), 30% non-plastic fines; 70% fine sand; very dense; dry.
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

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FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:

North ↘

B-40A

B-40B Segment B SF Bay Trail

B-40C

"B" 73+50 To "B" 78+50

Drawing C14

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-40C
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1140 hours	DATE: 5/31/16
COMPLETED, TIME: 1146 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	19"						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (2-inches)
Baserock (2-inches)
silty clay with Gravel (CL-ML) - brown (7.5YR5/3); 80%. low to medium plastic fines; 20% fine rounded gravel; ~~dry~~ ~~soft~~ hard; moist.

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FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:

North

B-40A
B-40B Segment B SF Bay Trail
B-40C

"B" 73+50 To "B" 78+50

Drawing C19

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-40A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1150 hours	DATE: 5/31/16
COMPLETED, TIME: 1155 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Asphalt (2-inches)
Baserock (2-inches)
Silty clay with Gravel (CL-ML) - brown (7.5YR5/3); 80% low to medium plastic Fines; 20% fine rounded gravel; hard; moist.

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FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:

North ↘

B-40A

• B-40B Segment 15 SF Bay Trail

• B-40C

"B" 73+50 To "B" 79+50

Drawing C14

PROJECT: EBRPD SF Bay Trail nr Point Molate	BORING NO.: B-40B
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1196 hours	DATE: 5/31/16
COMPLETED, TIME: 1150 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	22						0			

Asphalt (2-inches)
Baserock (2-inches)
Silty clay with Gravel (CL-ML) - brown (7.5YR5/3), 80% low to medium plastic fines, 20% fine rounded gravel; hard; moist.

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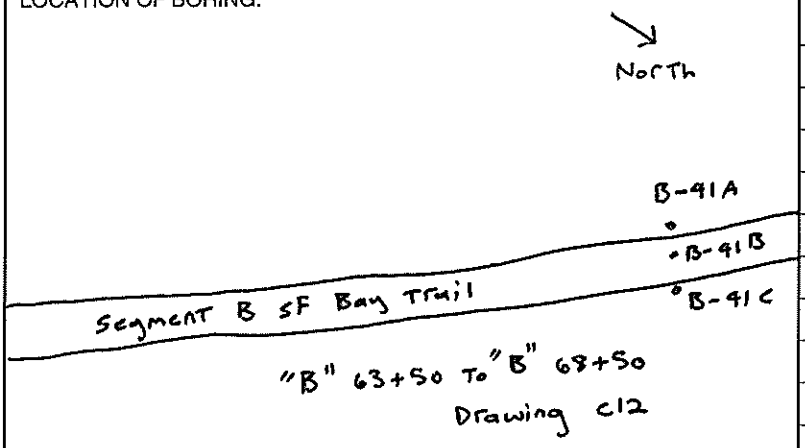
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 63+50 To "B" 68+50
Drawing C12

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-41A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1227 hours	DATE: 5/31/16
COMPLETED, TIME: 1230 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG	
			24	18						0			Silty Gravel with Sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic Fines; 20% fine sand; 50% fine rounded gravel; loose; dry.
										1			Fat clay (CH) - very dark brown (10YR 2/2); predominantly high plastic fines; very stiff; moist.
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

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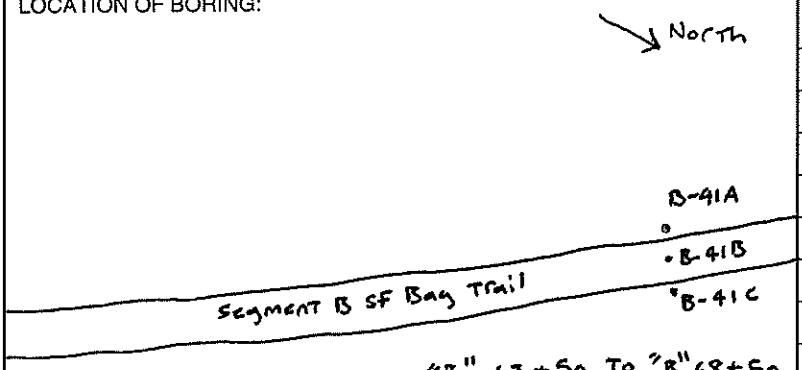
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 63+50 To "B" 68+50

Drawing C12

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-41B
	TOTAL DEPTH: 2- Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1222 hours	DATE: 5/31/16
COMPLETED, TIME: 1227 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	19						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

Fat Clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff; moist.

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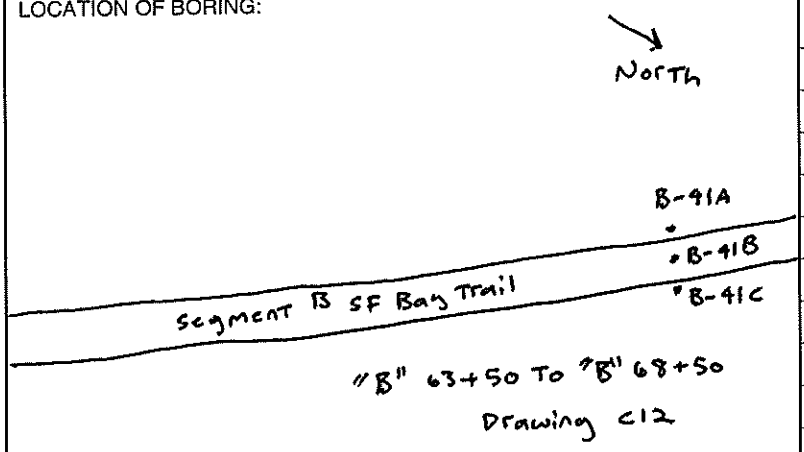
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-41C
JOB NO.: 567.04.55	TOTAL DEPTH: 2 - Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1216 hours	DATE: 5/31/16
COMPLETED, TIME: 1222 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			

0 to 1: Silty Gravel with Sand (GM) - very dark grayish brown (10YR 3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

1 to 2: Fat clay (CH) - very dark brown (10YR 2/2); predominantly high plastic fines; very stiff; moist.

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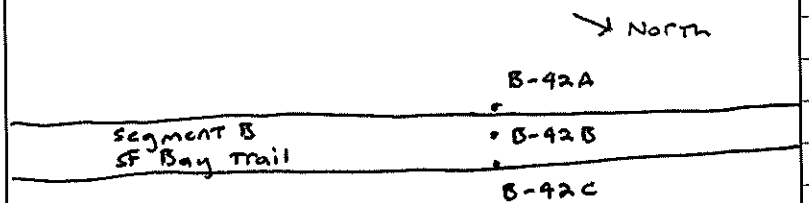
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 59+50 To "B" 63+50

Drawing C11

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-42A
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1334 hours	DATE: 5/31/16
COMPLETED, TIME: 1337 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry

Fat clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff; moist.

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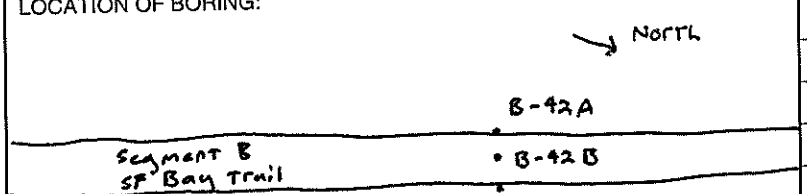
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 58+50 to "B" 63+50
Drawing C11

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-42B
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1337 hours	DATE: 5/31/16
COMPLETED, TIME: 1340 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	15						0			

Silty gravel with sand (GM) - very dark grayish brown (10YR3/2); 30%, non-plastic fines; 20% fine sand; 90% fine rounded gravel; loose; dry

Fat clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff moist,

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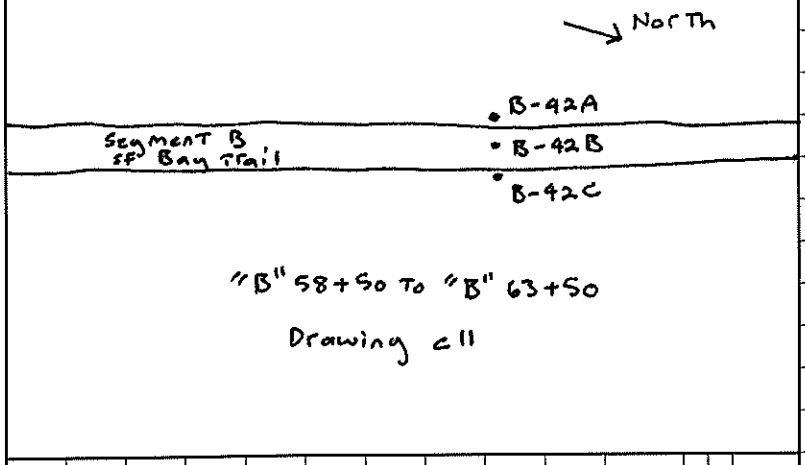
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-42C
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1340 hours	DATE: 5/31/16
COMPLETED, TIME: 1345 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	24						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

Fat clay (CH) - very dark brown (10YR2/2) predominantly high plastic fines; very stiff; moist.

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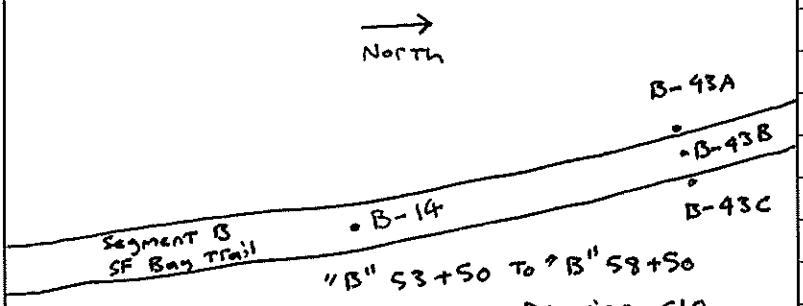
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 53+50 To "B" 58+50

Drawing C10

PROJECT: E.B.R.P.D. SF Bay Trail at Point Molate	BORING NO.: B-43A
	TOTAL DEPTH: 2 - Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1313 hours	DATE: 5/31/16
COMPLETED, TIME: 1318 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with Sand (GM) - very dark grayish brown (10YR3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

Fat Clay (CH) - very dark brown (10YR2/2); predominantly high plastic fines; very stiff; moist.

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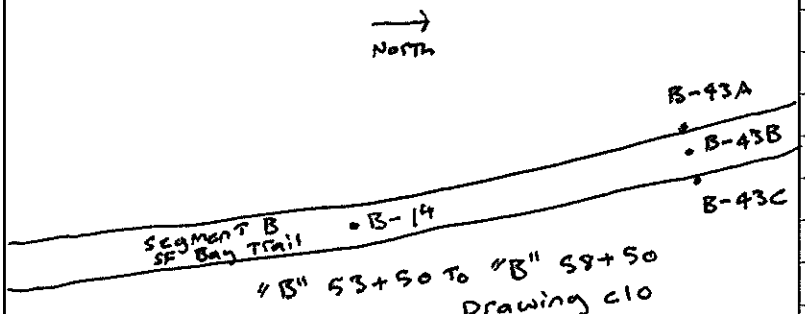
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 53+50 To "B" 58+50
Drawing c10

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-43B
JOB NO.: 567.04.55	TOTAL DEPTH: 2 - Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1318 hours	DATE: 5/31/16
COMPLETED, TIME: 1323 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	14						0			90/10
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

0-1 City Gravel with sand (GM) - very dark grayish brown (10YR 3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

1-2 Fat clay (CH) - very dark brown (10YR 2/2); predominantly high plastic fines; very stiff; moist.

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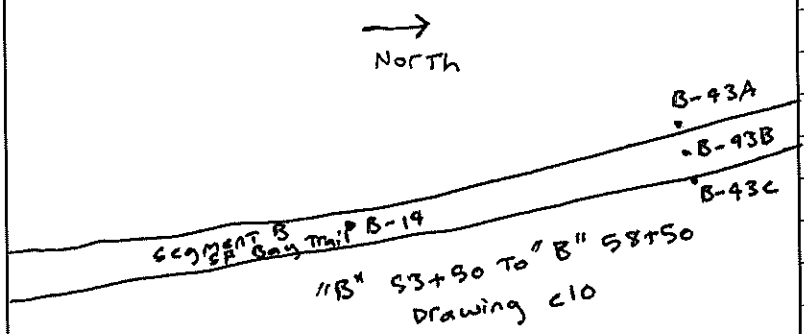
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-43C
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1323 hours	DATE: 5/31/16
COMPLETED, TIME: 1328 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel with sand (GM) - very dark grayish brown (10YR 3/2); 30% non-plastic fines; 20% fine sand; 50% fine rounded gravel; loose; dry.

Fat clay (CH) - very dark brown (10YR 2/2), predominantly high plastic fines; very stiff; moist.

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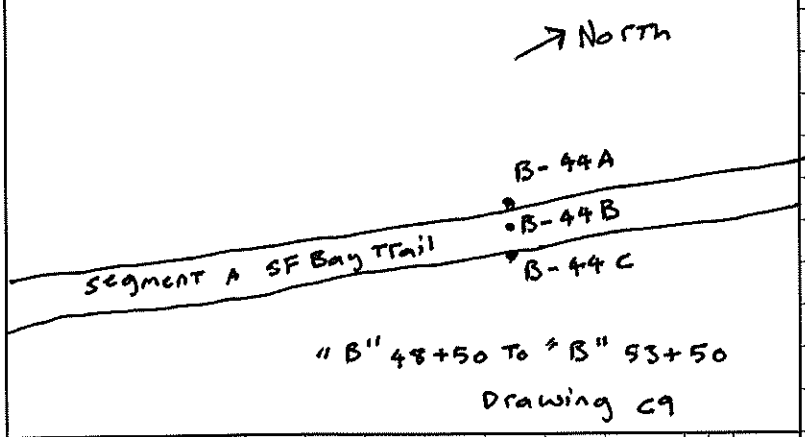
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-44A
	TOTAL DEPTH: ~~16~~ 16-inc
JOB NO.: 567.04.35	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE:	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Hand Auger	
HAMMER WT.:	DROP:
STARTED, TIME: 0911 hours	DATE: 6/1/16
COMPLETED, TIME: 0935 hours	DATE: 6/1/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

~~Silty~~ Poorly Graded Gravel (GP) - very dark gray (10YR 3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Silty Gravel (GM) - very dark gray (10YR 3/1), 40% non-plastic fines; 60% fine rounded gravel; loose; dry.

Bedrock was encountered at approximate 16-inches bgs.

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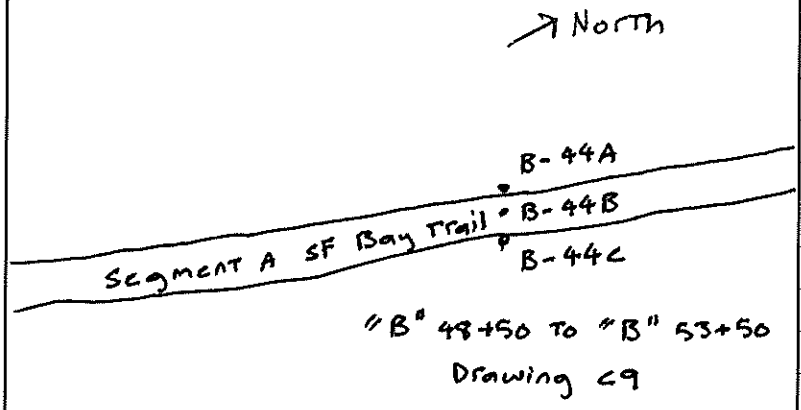
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 48+50 to "B" 53+50

Drawing C9

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-44B
	TOTAL DEPTH: 16+- inches
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Hand Auger	
HAMMER WT.:	DROP:
STARTED, TIME: 0935 hours	DATE: 6/1/16
COMPLETED, TIME: 0990 hours	DATE: 6/1/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER SAMPLE RECOVERY	GRAPHIC LOG
										1		
										2		
										3		
										4		
										5		
										6		
										7		
										8		
										9		
										10		

Poorly Graded Gravel - very dark gray (10YR3/1), predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Silty Gravel (GM) - very dark gray (10YR3/1); 40% non-plastic fines; 60% fine rounded gravel; loose; dry.

Bedrock was encountered at approximately 16-inches bgs.

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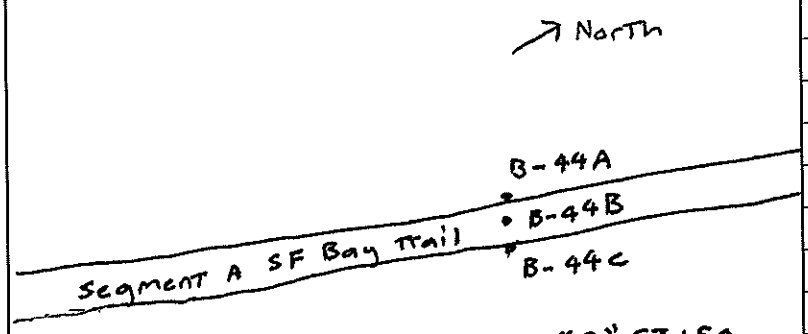
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 48+50 To "B" 53+50
Drawing C9

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-44C
JOB NO.: 567.04.55	TOTAL DEPTH: 19" inches
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE:	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Hand Auger	
HAMMER WT.:	DROP:
STARTED, TIME: 0937 hours	DATE: 6/1/16
COMPLETED, TIME: 0943 hours	DATE: 6/1/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

Silty Gravel (GM) - very dark gray (10YR3/1); 40% non-plastic fines; 60% Fine rounded gravel; loose; dry.

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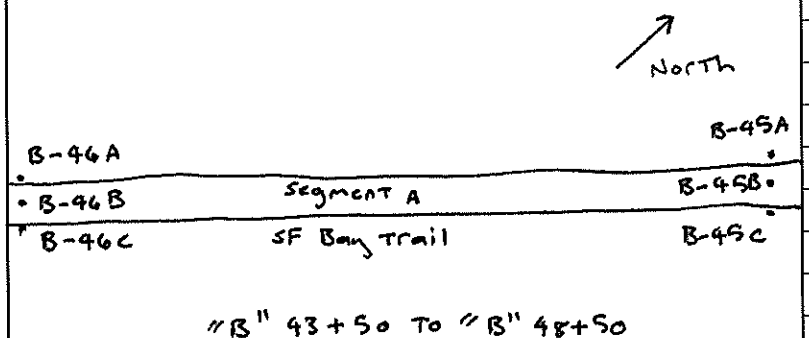
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50

Drawing c8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-45A
	TOTAL DEPTH: 2 - Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1453 hours	DATE: 5/31/16
COMPLETED, TIME: 1500 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	15						0			

(2-inches) Poorly Graded Gravel (GP) - very dark gray (10YR 3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Lean clay with sand (CL) - brown (7.5YR 3/3); 85% low plastic fines; 15% fine sand; very stiff; moist.

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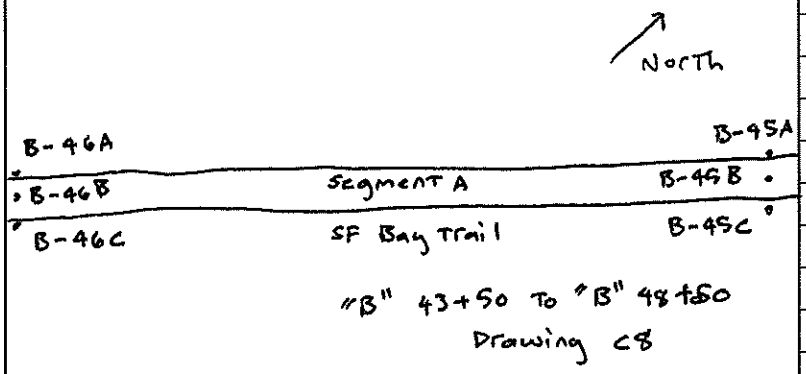
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50
Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-45B
JOB NO.: 567.04.55	TOTAL DEPTH: 2 - Feet
PROJ. MGR.: R. Shafer	LOGGED BY:
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1448 hours	DATE: 5/31/16
COMPLETED, TIME: 1453 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	15						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(2-inches) Poorly Graded Gravel (GM) - very dark gray (10YR 3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Lean clay with sand (CL) - brown (7.5YR 3/); 85% low plastic fines; 15% fine sand; very stiff; moist.

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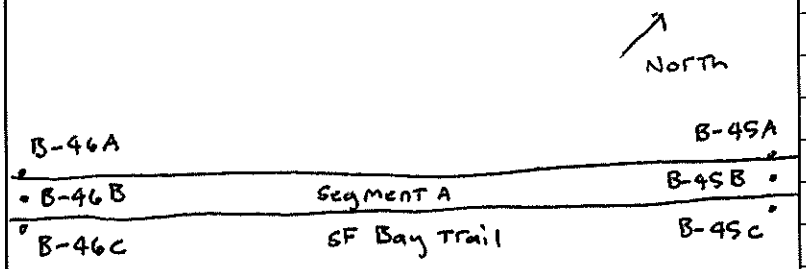
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50
Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-45C
JOB NO.: 367.04.55	TOTAL DEPTH: 2-feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1442 hours	DATE: 5/31/16
COMPLETED, TIME: 1448 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	#6						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(2-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Lean clay with Sand (CL) - brown (7.5YR3/3); 85% low plastic fines; 15% fine sand; very stiff; moist.

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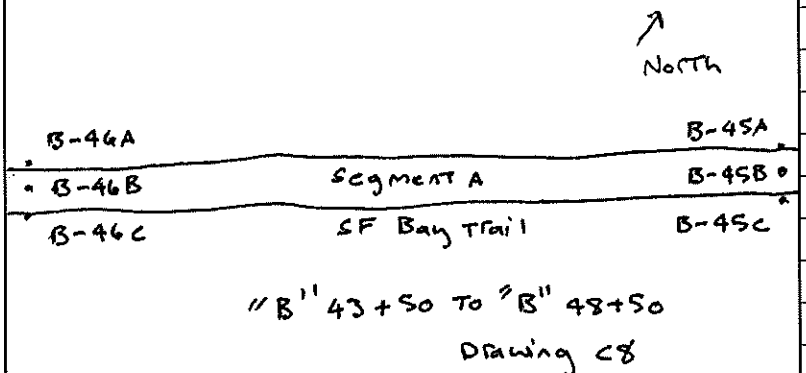
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50

Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-46A
JOB NO.: 467.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1424 hours	DATE: 5/31/16
COMPLETED, TIME: 1429 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
				24	18					0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(3inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry

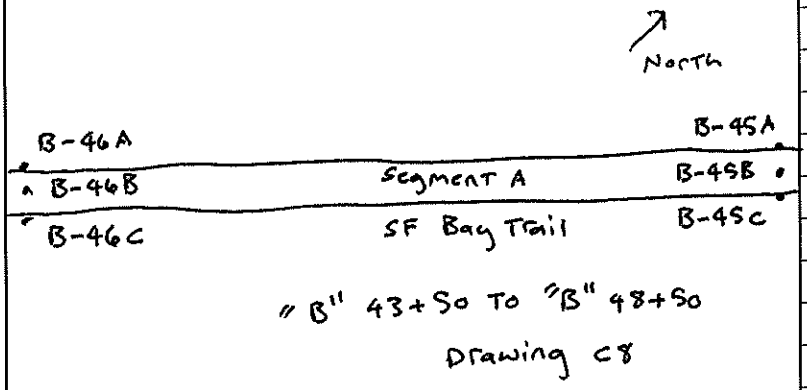
Lean clay with sand (CL) - brown (7.5YR3); 85%, low plastic fines; 15% fine sand; very stiff; moist.

ANCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 to "B" 48+50

Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-46B
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1429 hours	DATE: 5/31/16
COMPLETED, TIME: 1436 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	14						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(3-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

Lean clay with sand (CL) - brown (7.5YR5/3); 85% low plastic fines; 15% fine sand; very stiff; moist.

ANCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
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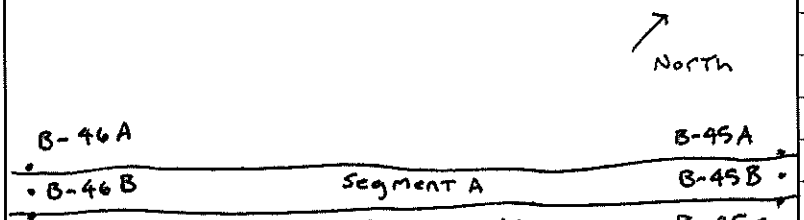
FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50
Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-46C
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1436 hours	DATE: 5/31/16
COMPLETED, TIME: 1442 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	15						0			

(3-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

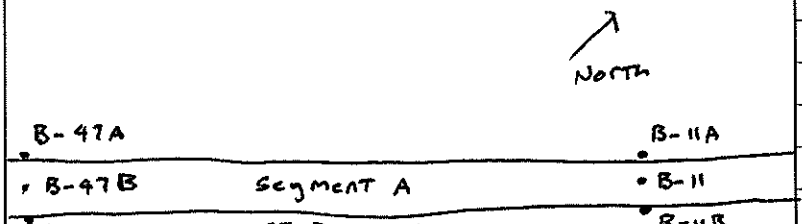
Lean clay with sand (CL) - brown (7.5YR3 5/3, low plastic fines; 15% fine sand; very stiff; moist.

ANCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50

Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-47A
JOB NO.: 567.04.55	TOTAL DEPTH: 2-Feet
PROJ. MGR.: R. Shafer	LOGGED BY: B. Bardsley
DRILLING CONTRACTOR: Confluence Environmental	EDITED BY:
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1408 hours	DATE: 5/31/16
COMPLETED, TIME: 1415 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	24						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(3-inches) Poorly Graded Gravel (GM) – very dark gray (10YR 3/1); predominantly fine rounded gravel; Trace amounts of non-plastic fines; d

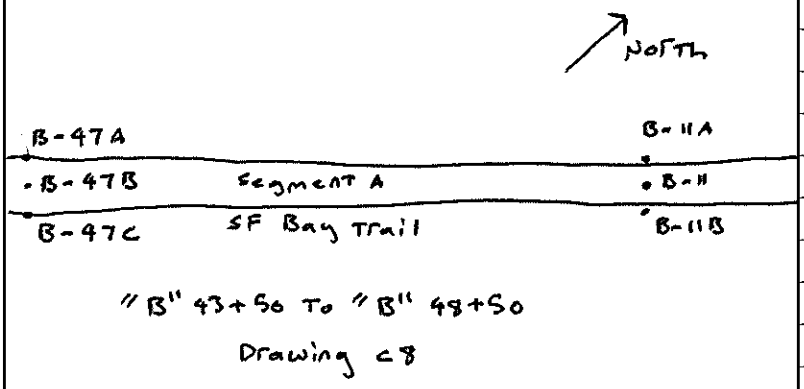
Lean clay with sand (CL) – brown (7.5YR 3); 85% Low plastic fines; 15% fine sand; very stiff; moist.

ANCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 To "B" 48+50

Drawing c8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-47B
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Shafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: Continuous Core	
HAMMER WT.:	DROP:
STARTED, TIME: 1405 hours	DATE: 5/31/16
COMPLETED, TIME: 1408 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(3-inches) Poorly Graded Gravel (GM) - very dark gray (10YR3/1); predominantly fine rounded gravel; trace amounts of non-plastic fines; dry.

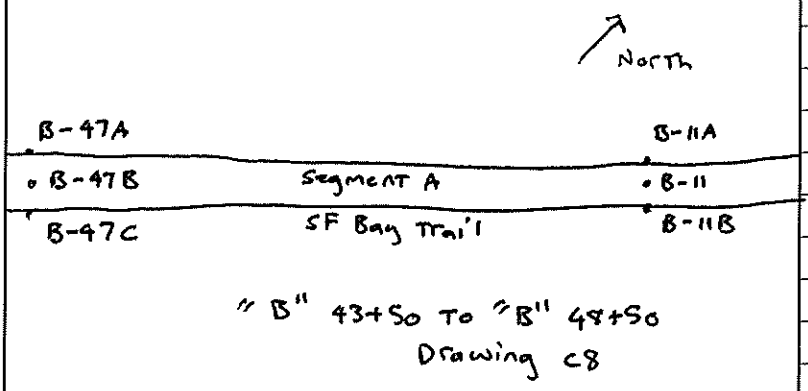
Lean clay (CL) - brown (7.5YR3); 85% low plastic fines; 15% fine sand; very stiff; moist.

ANCE 8795 Folsom Blvd, Ste 250 Sacramento, CA 95826
P: 916.388.5655 F: 916.388.5676

FIELD LOG OF BORING

Sheet 1 of 1

LOCATION OF BORING:



"B" 43+50 to "B" 48+50
Drawing C8

PROJECT: EBRPD SF Bay Trail at Point Molate	BORING NO.: B-47C
	TOTAL DEPTH: 2-Feet
JOB NO.: 567.04.55	LOGGED BY: B. Bardsley
PROJ. MGR.: R. Snafer	EDITED BY:
DRILLING CONTRACTOR: Confluence Environmental	
DRILL RIG TYPE: Direct Push	
DRILLER'S NAME: Jesus Morales	
SAMPLING METHODS: continuous core	
HAMMER WT.:	DROP:
STARTED, TIME: 1401 hours	DATE: 5/31/16
COMPLETED, TIME: 1405 hours	DATE: 5/31/16
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE				DEPTH IN FEET	HYDROPUNCH/OTHER	SAMPLE RECOVERY	GRAPHIC LOG
			24	18						0			
										1			
										2			
										3			
										4			
										5			
										6			
										7			
										8			
										9			
										10			

(3-inches) Poorly Graded Gravel (GM) - very dark gray (10YR 3/1), predominantly fine rounded gravel trace amounts of non-plastic fines, dry.

Lean clay with sand (CL) - brown (7.5YR 3), 95% low plastic fines; 15% fine sand, very stiff; moist.

ATTACHMENT C

SOIL SAMPLE LABORATORY ANALYTICAL REPORTS

EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449

ELAP Certificate No. : 2119

23 March 2016

Brett Bardsley

NCE

8795 Folsom Boulevard, Suite 250

Sacramento, CA 95826

RE: Port of Richmond (Shipyard No. 3)

Work order number:1603100

Enclosed are the results of analyses for samples received by the laboratory on 03/11/16 11:15. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

_____

John Somers, Lab Director

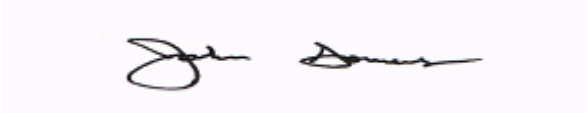
Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-0.5	1603100-01	Soil	03/08/16 09:56	03/11/16 11:15
B-1-1.5	1603100-02	Soil	03/08/16 10:00	03/11/16 11:15
B-2-0.5	1603100-03	Soil	03/08/16 10:36	03/11/16 11:15
B-2-1.5	1603100-04	Soil	03/08/16 10:41	03/11/16 11:15
B-3-0.5	1603100-05	Soil	03/08/16 11:04	03/11/16 11:15
B-4-0.5	1603100-06	Soil	03/08/16 11:33	03/11/16 11:15
B-4-1.5	1603100-07	Soil	03/08/16 11:38	03/11/16 11:15
B-5-0.5	1603100-08	Soil	03/08/16 12:20	03/11/16 11:15
B-5-1.5	1603100-09	Soil	03/08/16 12:30	03/11/16 11:15
B-6-0.4	1603100-10	Soil	03/08/16 12:54	03/11/16 11:15
B-7-0.4	1603100-11	Soil	03/08/16 13:11	03/11/16 11:15
B-34-0.5	1603100-12	Soil	03/08/16 13:41	03/11/16 11:15
B-8-0.2	1603100-13	Soil	03/08/16 14:04	03/11/16 11:15
B-14-0.5	1603100-14	Soil	03/08/16 15:10	03/11/16 11:15
B-14-1.5	1603100-15	Soil	03/08/16 15:15	03/11/16 11:15
B-15-0.5	1603100-16	Soil	03/08/16 15:47	03/11/16 11:15
B-15-1.5	1603100-17	Soil	03/08/16 15:52	03/11/16 11:15
B-16-0.3	1603100-18	Soil	03/08/16 16:36	03/11/16 11:15
B-16-1.5	1603100-19	Soil	03/08/16 16:40	03/11/16 11:15
B-17-0.5	1603100-20	Soil	03/09/16 08:43	03/11/16 11:15
B-17-1.5	1603100-21	Soil	03/09/16 08:46	03/11/16 11:15
B-18-0.5	1603100-22	Soil	03/09/16 09:24	03/11/16 11:15
B-18-1.5	1603100-23	Soil	03/09/16 09:29	03/11/16 11:15
B-19-0.5	1603100-24	Soil	03/09/16 09:56	03/11/16 11:15
B-19-1.5	1603100-25	Soil	03/09/16 09:59	03/11/16 11:15
B-20-0.3	1603100-26	Soil	03/09/16 10:26	03/11/16 11:15
B-21-0.5	1603100-27	Soil	03/09/16 10:45	03/11/16 11:15
B-21-1.5	1603100-28	Soil	03/09/16 10:48	03/11/16 11:15
B-22-0.4	1603100-29	Soil	03/09/16 11:09	03/11/16 11:15

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

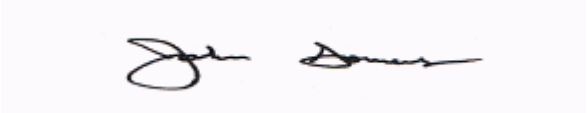
Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-28-0.3	1603100-30	Soil	03/09/16 11:44	03/11/16 11:15
B-29-0	1603100-31	Soil	03/09/16 12:12	03/11/16 11:15
B-30-0.2	1603100-32	Soil	03/09/16 12:33	03/11/16 11:15
B-30-1.5	1603100-33	Soil	03/09/16 12:37	03/11/16 11:15
B-27-0.5	1603100-34	Soil	03/09/16 12:55	03/11/16 11:15
B-27-1.5	1603100-35	Soil	03/09/16 12:58	03/11/16 11:15
B-26-0.5	1603100-36	Soil	03/09/16 13:29	03/11/16 11:15
B-25-0.5	1603100-37	Soil	03/09/16 13:54	03/11/16 11:15
B-25-1.5	1603100-38	Soil	03/09/16 13:58	03/11/16 11:15
B-24-0.3	1603100-39	Soil	03/09/16 14:29	03/11/16 11:15
B-23-0.5	1603100-40	Soil	03/09/16 14:49	03/11/16 11:15
B-23-1.5	1603100-41	Soil	03/09/16 14:53	03/11/16 11:15
B-31-0.5	1603100-42	Soil	03/09/16 15:15	03/11/16 11:15
B-31-1.5	1603100-43	Soil	03/09/16 15:20	03/11/16 11:15
B-32-1.5	1603100-44	Soil	03/09/16 15:40	03/11/16 11:15
B-33-0.2	1603100-45	Soil	03/09/16 16:23	03/11/16 11:15
B-36-0.5	1603100-46	Soil	03/09/16 16:46	03/11/16 11:15
B-36-1.5	1603100-47	Soil	03/09/16 16:53	03/11/16 11:15
B-9-0.2	1603100-48	Soil	03/10/16 09:03	03/11/16 11:15
B-10-0.5	1603100-49	Soil	03/10/16 09:22	03/11/16 11:15
B-10-1.5	1603100-50	Soil	03/10/16 09:27	03/11/16 11:15
B-11-0.5	1603100-51	Soil	03/10/16 09:44	03/11/16 11:15
B-11-1.5	1603100-52	Soil	03/10/16 09:49	03/11/16 11:15
B-35-0.8	1603100-53	Soil	03/10/16 12:44	03/11/16 11:15
B-35-1.5	1603100-54	Soil	03/10/16 12:49	03/11/16 11:15
B-13-0.5	1603100-55	Soil	03/10/16 13:56	03/11/16 11:15
B-13-1.5	1603100-56	Soil	03/10/16 14:00	03/11/16 11:15
B-3-1.5	1603100-57	Soil	03/08/16 11:12	03/11/16 11:15

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-1-0.5

1603100-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.5**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**9.3**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-1-1.5

1603100-02 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.9**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**8.4**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-2-0.5

1603100-03 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.9**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**13.1**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-2-1.5

1603100-04 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.5**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**9.2**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-3-0.5

1603100-05 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.6**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**63.5**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-4-0.5

1603100-06 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.2**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**14.2**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-4-1.5

1603100-07 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.4**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**7.8**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-5-0.5

1603100-08 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.8**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**527**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-5-1.5

1603100-09 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.0**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**9.0**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-6-0.4

1603100-10 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.1**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**9.7**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-7-0.4

1603100-11 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.3**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**8.3**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-34-0.5

1603100-12 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.4**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**8.2**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-8-0.2

1603100-13 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.8**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**11.9**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-14-0.5

1603100-14 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**26.0**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**10.8**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-14-1.5

1603100-15 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.5**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**12.2**	1.0	"	"	"	"	"	

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Laboratory Representative

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-15-0.5

1603100-16 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.8**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**8.9**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-15-1.5

1603100-17 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.1**	2.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**19.9**	2.0	"	"	"	"	"	

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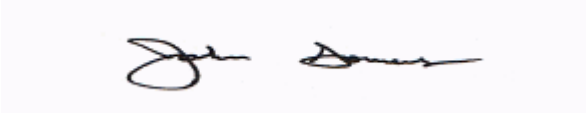

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-16-0.3

1603100-18 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.1**	2.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**12.1**	2.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-16-1.5
1603100-19 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.2**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**11.4**	1.0	"	"	"	"	"	

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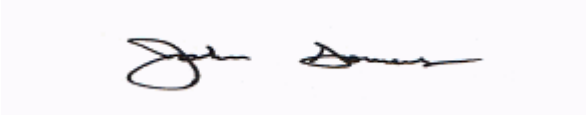
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-17-0.5

1603100-20 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.5**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**14.8**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.



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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-17-1.5

1603100-21 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.5**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**10.3**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-18-0.5

1603100-22 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.8**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**11.0**	1.0	"	"	"	"	"	

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B-18-1.5

1603100-23 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.0**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**14.0**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-19-0.5

1603100-24 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	ND	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	ND	1.0	"	"	"	"	"	

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8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-19-1.5

1603100-25 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.7**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**11.2**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-20-0.3

1603100-26 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.3**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**9.6**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-21-0.5

1603100-27 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.3**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**9.2**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-21-1.5

1603100-28 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.5**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**10.2**	1.0	"	"	"	"	"	

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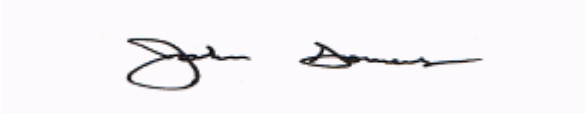
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-22-0.4

1603100-29 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.1**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**69.5**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.



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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-28-0.3

1603100-30 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.0**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**16.9**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-29-0

1603100-31 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.4**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**10.4**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-30-0.2

1603100-32 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.0**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**19.2**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-30-1.5

1603100-33 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.0**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**16.3**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-27-0.5

1603100-34 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.8**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**15.5**	1.0	"	"	"	"	"	

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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-27-1.5

1603100-35 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.7**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**14.7**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-26-0.5

1603100-36 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.7**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**14.5**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-25-0.5

1603100-37 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.5**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**34.5**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
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Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-25-1.5

1603100-38 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.8**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**12.9**	1.0	"	"	"	"	"	

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-24-0.3

1603100-39 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.0**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**5.7**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

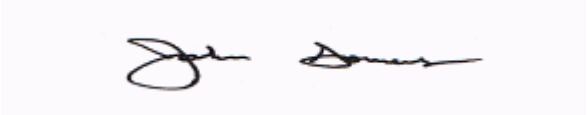
NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-23-0.5

1603100-40 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.4**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**6.1**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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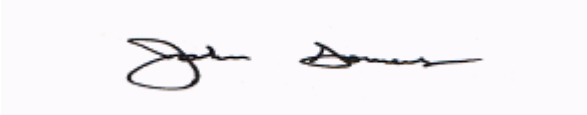
NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-23-1.5

1603100-41 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.6**	1.0	mg/kg	AZC0162	03/16/16	03/17/16	EPA 6010B	
Lead	**2.3**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-31-0.5

1603100-42 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.3**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**14.6**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-31-1.5

1603100-43 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.1**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**11.8**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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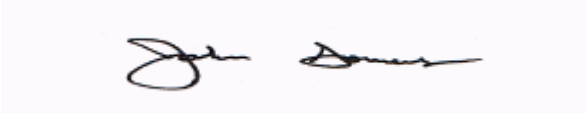
NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-32-1.5

1603100-44 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.9**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**10.6**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-33-0.2

1603100-45 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.3**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**7.7**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-36-0.5

1603100-46 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**11.8**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**26.9**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-36-1.5

1603100-47 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**10.1**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**14.6**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-9-0.2

1603100-48 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.3**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**7.2**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-10-0.5

1603100-49 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.3**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**31.8**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-10-1.5

1603100-50 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.9**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**46.2**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-11-0.5

1603100-51 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**12.8**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**19.9**	1.0	"	"	"	"	"	

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Laboratory Representative

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-11-1.5

1603100-52 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**13.4**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**15.5**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-35-0.8

1603100-53 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**14.9**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**20.6**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-35-1.5

1603100-54 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.5**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**9.3**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-13-0.5

1603100-55 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**26.9**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**31.8**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-13-1.5

1603100-56 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**11.1**	2.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**19.7**	2.0	"	"	"	"	"	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

B-3-1.5

1603100-57 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.7**	1.0	mg/kg	AZC0162	03/16/16	03/18/16	EPA 6010B	
Lead	**36.9**	1.0	"	"	"	"	"	

Excelchem Environmental Lab.

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Excelchem Environmental Labs

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8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZC0162 - EPA 6010B										
Blank (AZC0162-BLK1)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	ND	1.0	mg/kg							
Lead	ND	1.0	"							
Blank (AZC0162-BLK2)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	ND	1.0	mg/kg							
Lead	ND	1.0	"							
Blank (AZC0162-BLK3)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	ND	1.0	mg/kg							
Lead	ND	1.0	"							
LCS (AZC0162-BS1)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	93.4	1.0	mg/kg	100		93.4	80-120			
Lead	98.4	1.0	"	100		98.4	80-120			
LCS (AZC0162-BS2)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	91.9	1.0	mg/kg	100		91.9	80-120			
Lead	94.3	1.0	"	100		94.3	80-120			
LCS (AZC0162-BS3)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	93.5	1.0	mg/kg	100		93.5	80-120			
Lead	97.5	1.0	"	100		97.5	80-120			
LCS Dup (AZC0162-BSD1)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	93.3	1.0	mg/kg	100		93.3	80-120	0.139	25	
Lead	98.0	1.0	"	100		98.0	80-120	0.489	25	
LCS Dup (AZC0162-BSD2)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	91.8	1.0	mg/kg	100		91.8	80-120	0.131	25	
Lead	94.0	1.0	"	100		94.0	80-120	0.382	25	

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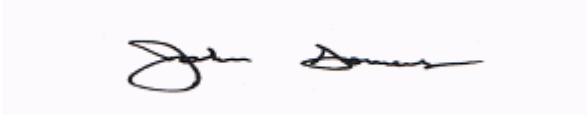

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8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZC0162 - EPA 6010B										
LCS Dup (AZC0162-BSD3)				Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	92.5	1.0	mg/kg	100		92.5	80-120	1.14	25	
Lead	96.9	1.0	"	100		96.9	80-120	0.586	25	
Matrix Spike (AZC0162-MS1)		**Source: 1603100-01**		Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	85.0	1.0	mg/kg	100	2.48	82.5	75-125			
Lead	88.0	1.0	"	100	9.28	78.7	75-125			
Matrix Spike (AZC0162-MS2)		**Source: 1603100-21**		Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	78.2	1.0	mg/kg	100	4.52	73.7	75-125			QL-01
Lead	80.0	1.0	"	100	10.3	69.8	75-125			QL-01
Matrix Spike (AZC0162-MS3)		**Source: 1603100-41**		Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	81.5	1.0	mg/kg	100	1.62	79.9	75-125			
Lead	66.8	1.0	"	100	2.33	64.5	75-125			QL-01
Matrix Spike Dup (AZC0162-MSD1)		**Source: 1603100-01**		Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	84.9	1.0	mg/kg	100	2.48	82.4	75-125	0.0471	25	
Lead	87.2	1.0	"	100	9.28	78.0	75-125	0.845	25	
Matrix Spike Dup (AZC0162-MSD2)		**Source: 1603100-21**		Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	80.0	1.0	mg/kg	100	4.52	75.5	75-125	2.29	25	
Lead	81.7	1.0	"	100	10.3	71.4	75-125	2.09	25	QL-01
Matrix Spike Dup (AZC0162-MSD3)		**Source: 1603100-41**		Prepared: 03/16/16 Analyzed: 03/17/16						
Arsenic	78.2	1.0	mg/kg	100	1.62	76.6	75-125	4.06	25	
Lead	65.9	1.0	"	100	2.33	63.6	75-125	1.40	25	QL-01

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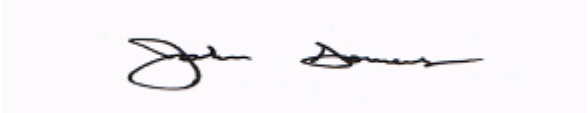

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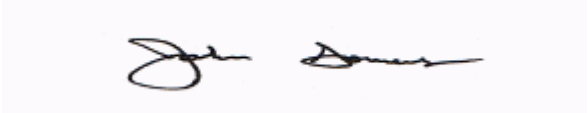
NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

Notes and Definitions

QL-01	Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
ND	Analyte not detected at the reporting limit.
NR	Not reported

Excelchem Environmental Lab.



Laboratory Representative

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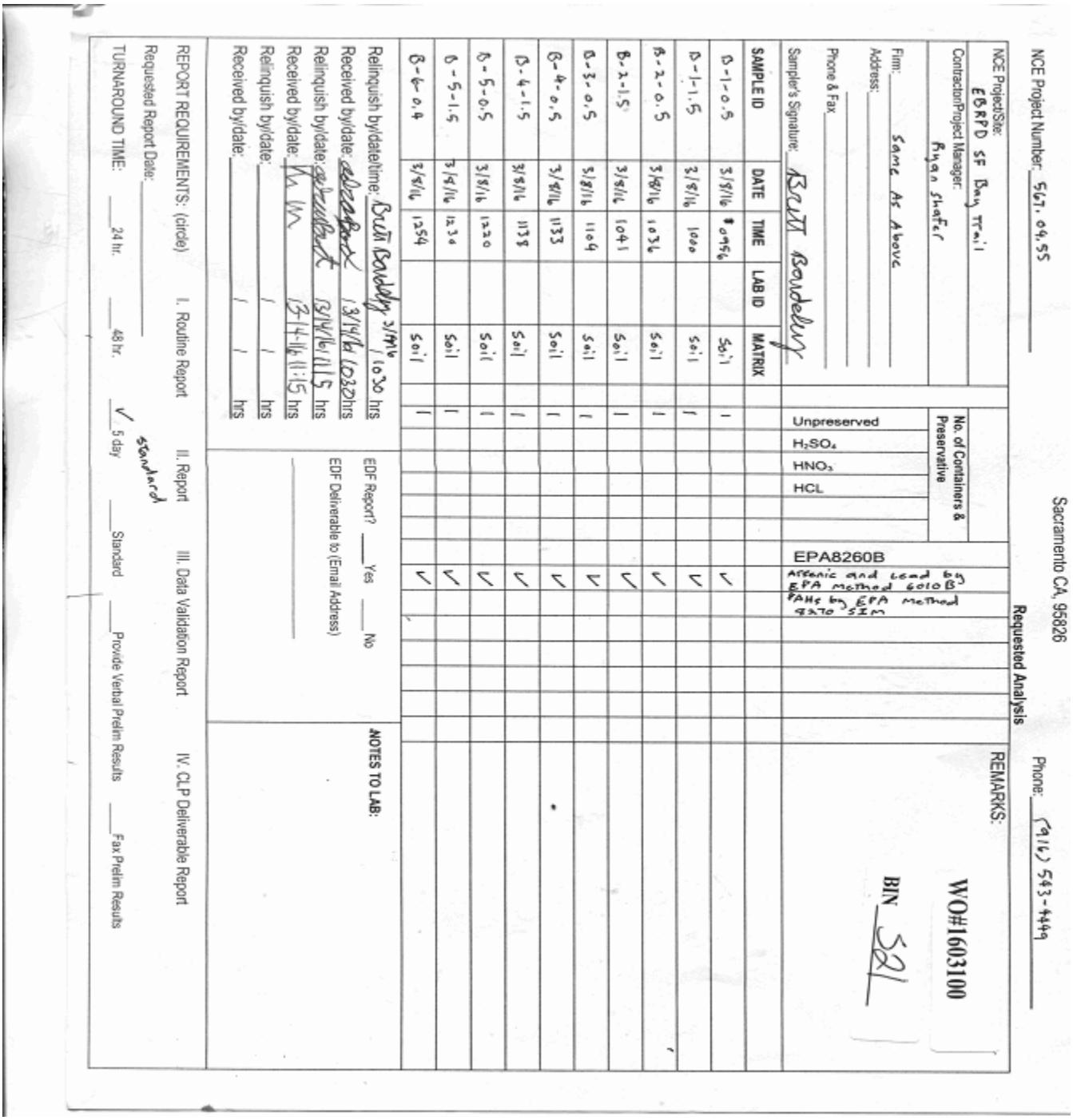
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11



NCE Project Number: 567.04.55 — Sacramento CA, 95826 — Phone: (916) 543-4449

NCE Project/Site: EBRPD SF Bay Trail

Contractor/Project Manager: Ryan Shafer

Firm: Same As Above

Address:

Phone & Fax:

Sampler's Signature: Brett Bardsley

Requested Analysis

No. of Containers & Preservative: Unpreserved; H_2SO_4; HNO_3; HCL

EPA8260B

Arsenic and Lead by EPA Method 6010B

PAHs by EPA Method 8270 SIM

REMARKS: WO#1603100 BIN 521

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic and Lead by EPA Method 6010B	PAHs by EPA Method 8270 SIM
B-1-0.5	3/8/16	0956		Soil	1					✓	
B-1-1.5	3/8/16	1000		Soil	1					✓	
B-2-0.5	3/8/16	1036		Soil	1					✓	
B-2-1.5	3/8/16	1041		Soil	1					✓	
B-3-0.5	3/8/16	1109		Soil	1					✓	
B-4-0.5	3/8/16	1133		Soil	1					✓	
B-4-1.5	3/8/16	1138		Soil	1					✓	
B-5-0.5	3/8/16	1220		Soil	1					✓	
B-5-1.5	3/8/16	1230		Soil	1					✓	
B-6-0.4	3/8/16	1254		Soil	1					✓	

Relinquish by/date/time: Brett Bardsley 3/8/16 1630 hrs

Received by/date: [illegible] 3/9/16 1030hrs

Relinquish by/date: [illegible] 3/9/16 1115 hrs

Received by/date: [illegible] 3/9/16 11:15 hrs

Relinquish by/date: _____ hrs

Received by/date: _____ hrs

EDF Report? ___Yes ___No

EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report III. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: ___24 hr. ___48 hr. ✓ 5 day standard ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

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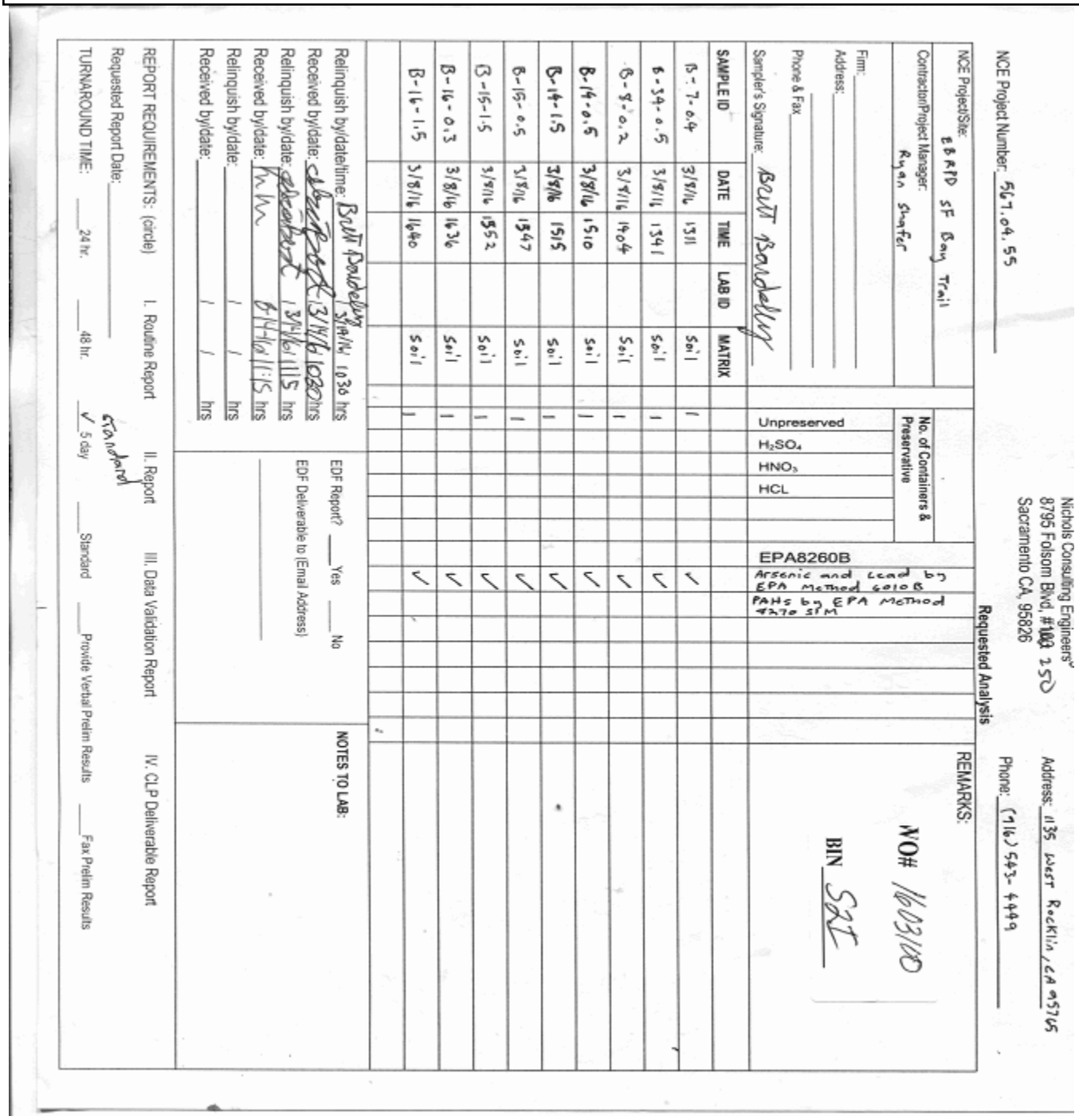
Laboratory Representative

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11



Nichols Consulting Engineers
8795 Folsom Blvd, #100, 250
Sacramento CA, 95826
Address: 1135 West Rockl... CA 95765
Phone: (916) 543-4999

NCE Project Number: 567.09.55

NCE Project/Site: EBRD SF Bay Trail
Contractor/Project Manager: Ryan Shafer
Firm:
Address:
Phone & Fax:
Sampler's Signature: Brett Bardsley

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic and Lead by EPA Method 6010B	PAHs by EPA Method 8270 SIM
B-7-0.5	3/9/16	1311		Soil	1				✓	✓	
B-39-0.5	3/9/16	1341		Soil	1				✓	✓	
B-8-0.2	3/9/16	1404		Soil	1				✓	✓	
B-14-0.5	3/8/16	1510		Soil	1				✓	✓	
B-14-1.5	3/8/16	1515		Soil	1				✓	✓	
B-15-0.5	3/8/16	1347		Soil	1				✓	✓	
B-15-1.5	3/9/16	1552		Soil	1				✓	✓	
B-16-0.3	3/8/16	1436		Soil	1				✓	✓	
B-16-1.5	3/8/16	1440		Soil	1				✓	✓	

REMARKS:
NO# 160300
BIN SAT

Relinquish by/date/time: Brett Bardsley 3/9/16 1836 hrs
Received by/date: [illegible] 3/9/16 1836 hrs
Relinquish by/date: [illegible] 3/9/16 1115 hrs
Received by/date: [illegible] 3/9/16 1115 hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report
Requested Report Date:
TURNAROUND TIME: ___24 hr. ___48 hr. ✓ 5 day ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

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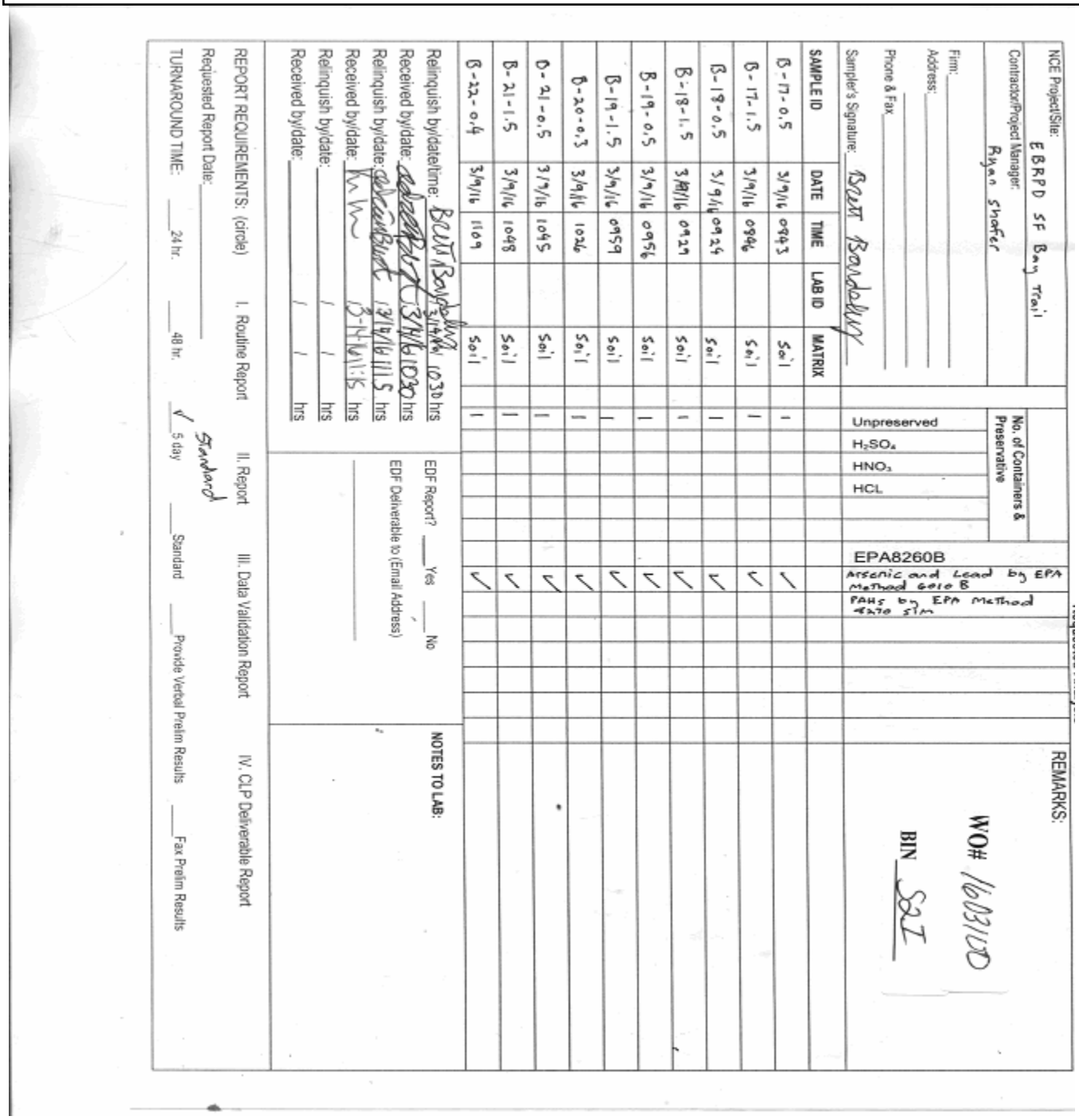
Laboratory Representative

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11



NCE Project/Site: EBRPD SF Bay Trail
Contractor/Project Manager: Ryan Shafer
Firm:
Address:
Phone & Fax:
Sampler's Signature: Brett Bardsley

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic and Lead by EPA Method 6010 B	PAHs by EPA Method 8270 SIM
B-17-0.5	3/9/16	0943		Soil	1					✓	
B-17-1.5	3/9/16	0946		Soil	1					✓	
B-18-0.5	3/9/16	0924		Soil	1					✓	
B-18-1.5	3/9/16	0927		Soil	1					✓	
B-19-0.5	3/9/16	0956		Soil	1					✓	
B-19-1.5	3/9/16	0959		Soil	1					✓	
B-20-0.3	3/9/16	1026		Soil	1					✓	
B-21-0.5	3/9/16	1045		Soil	1					✓	
B-21-1.5	3/9/16	1048		Soil	1					✓	
B-22-0.4	3/9/16	1109		Soil	1					✓	

REMARKS:
WO# 160310
BIN S2Z

Relinquish by/date/time: Brett Bardsley 3/14/16 1038 hrs
Received by/date: [illegible] 3/14/16 1038 hrs
Relinquish by/date: [illegible] 3/14/16 1115 hrs
Received by/date: [illegible] 3-14-16 1115 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address):

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III: Data Validation Report IV. CLP Deliverable Report
Requested Report Date:
TURNAROUND TIME: ___24 hr. ___48 hr. ✓ 5 day Standard ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

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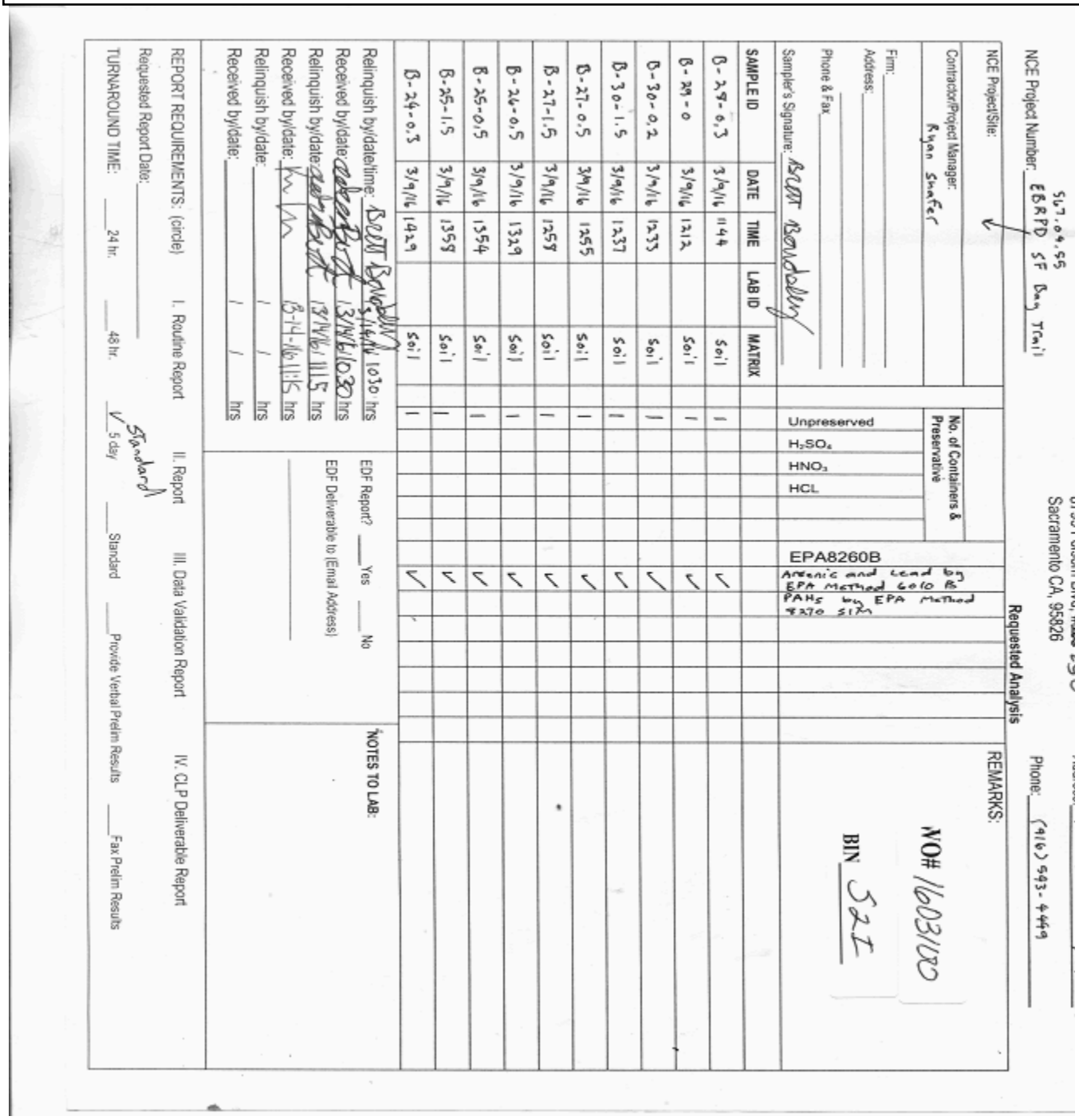
Laboratory Representative

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11



NCE Project/Site: ✓ 567.09.55 EBRPD SF Bay Trail

NCE Project Number: EBRPD SF Bay Trail

Contractor/Project Manager: Ryan Shafer

Firm:

Address:

Phone & Fax:

Sampler's Signature: Scott Bardsley

Sacramento CA, 95826

Phone: (916) 593-4499

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic and Lead by EPA Method 6010 B	PAHs by EPA Method 8270 SIM	REMARKS:
B-29-0.3	3/9/16	1144		Soil	1				✓	✓	✓	NO# 160318O
B-29-0	3/9/16	1212		Soil	1				✓	✓	✓	BIN 521
B-30-0.2	3/9/16	1233		Soil	1				✓	✓	✓	
B-30-1.5	3/9/16	1237		Soil	1				✓	✓	✓	
B-27-0.5	3/9/16	1255		Soil	1				✓	✓	✓	
B-27-1.5	3/9/16	1257		Soil	1				✓	✓	✓	
B-26-0.5	3/9/16	1329		Soil	1				✓	✓	✓	
B-25-0.5	3/9/16	1354		Soil	1				✓	✓	✓	
B-25-1.5	3/9/16	1359		Soil	1				✓	✓	✓	
B-24-0.3	3/9/16	1429		Soil	1				✓	✓	✓	

Relinquish by/date/time: Scott Bardsley 3/14/16 1030 hrs

Received by/date: [illegible] 3/14/16 1030 hrs

Relinquish by/date: [illegible] 3/14/16 1115 hrs

Received by/date: [illegible] 3-14-16 1115 hrs

Relinquish by/date: / / hrs

Received by/date: / / hrs

EDF Report? ___ Yes ___ No

EDF Deliverable to (Email Address):

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: ___ 24 hr. ___ 48 hr. ✓ 5 day Standard ___ Standard ___ Provide Verbal Prelim Results ___ Fax Prelim Results

Excelchem Environmental Lab.

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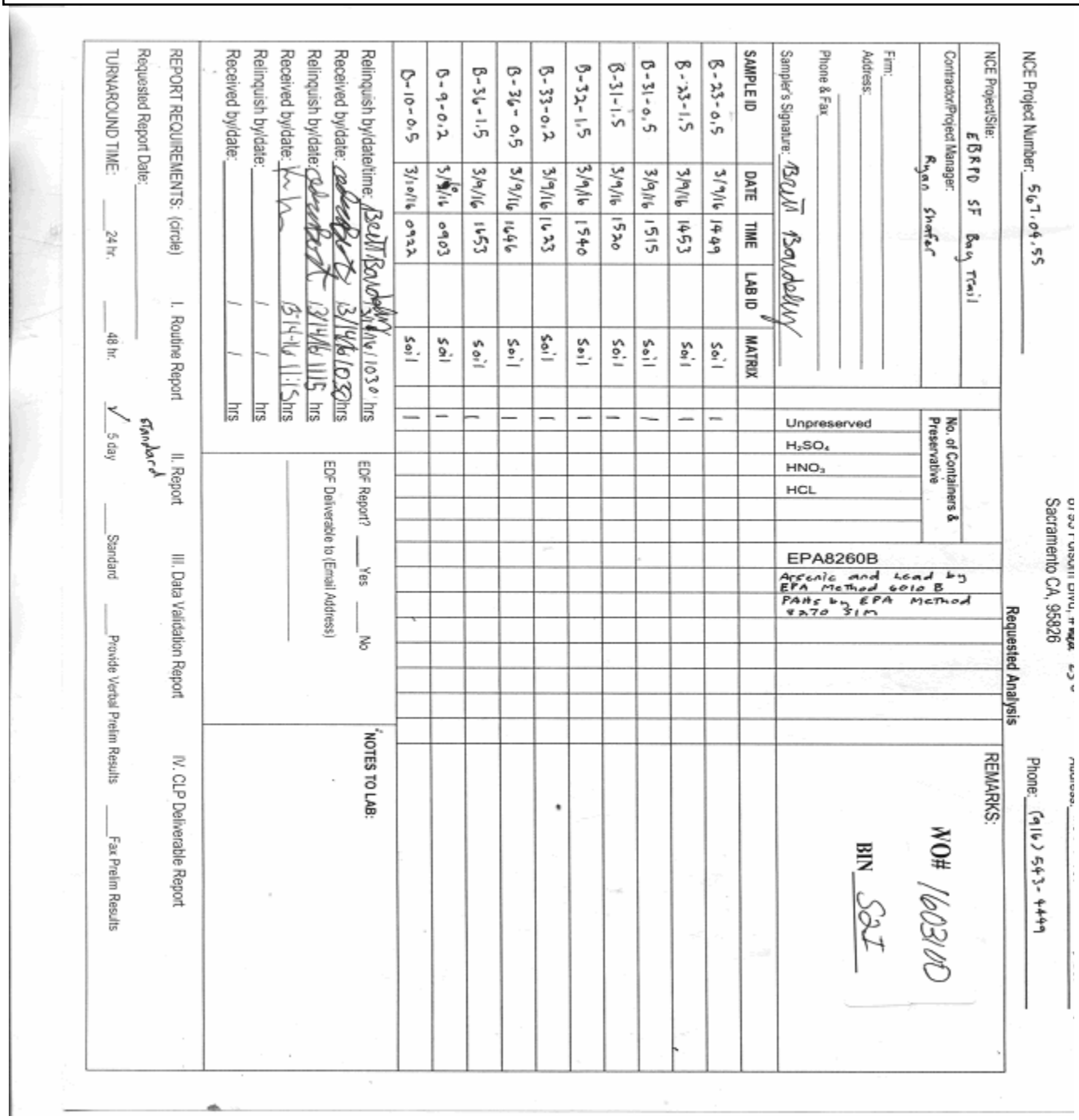
Laboratory Representative

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11



Excelchem Environmental Lab.

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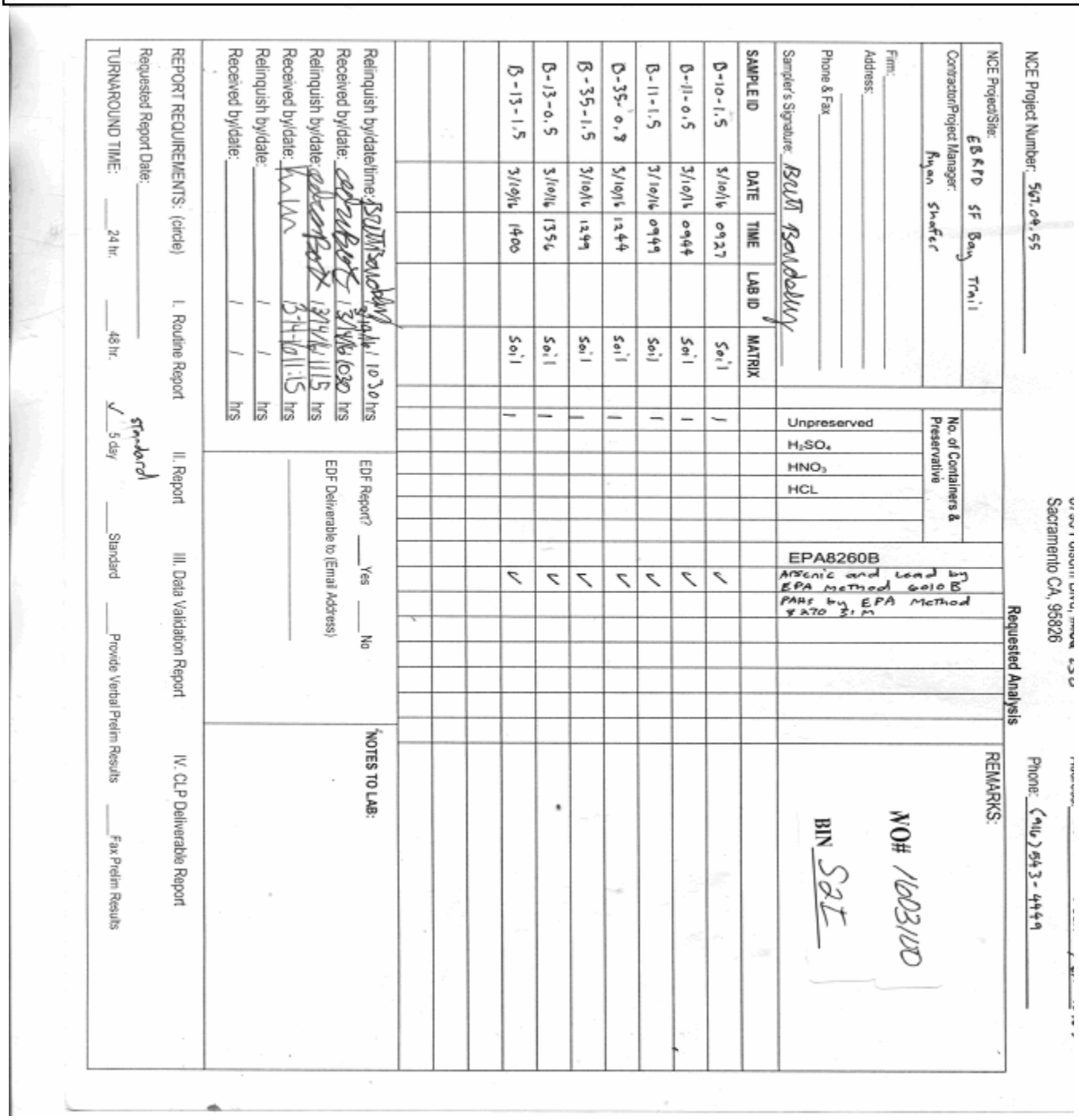
Laboratory Representative

Excelchem Environmental Labs

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11



NCE Project Number: 567.09.55

NCE Project/Site: EBRPD SF Bay Trail

Contractor/Project Manager: Ryan Shafer

Firm:

Address:

Phone & Fax:

Sampler's Signature: Brett Bardsley

Sacramento CA, 95826

Phone: (916) 894-4999

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic and Lead by EPA Method 6010	PAHs by EPA Method 8270 SIM	REMARKS:
B-10-1.5	3/10/16	0927		Soil	1				✓	✓		WO# 1603100
B-11-0.5	3/10/16	0944		Soil	1				✓	✓		BIN Sat
B-11-1.5	3/10/16	0949		Soil	1				✓	✓		
B-35-0.5	3/10/16	1244		Soil	1				✓	✓		
B-35-1.5	3/10/16	1249		Soil	1				✓	✓		
B-13-0.5	3/10/16	1356		Soil	1				✓	✓		
B-13-1.5	3/10/16	1400		Soil	1				✓	✓		

Relinquish by/date/time: Brett Bardsley 3/10/16 1030 hrs
Received by/date: [illegible] 3/10/16 1030 hrs
Relinquish by/date: [illegible] 3/10/16 1115 hrs
Received by/date: [illegible] 3/10/16 1115 hrs
Relinquish by/date: _____ hrs
Received by/date: _____ hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address):

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: ___24 hr. ___48 hr. ✓ 5 day Standard ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

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Laboratory Representative

NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

Sample Integrity

WORK ORDER _1603100

Date Received: 3/14/16

Section 1 – Sample Arrival Info.

Sample Transport: ONTRAC UPS USPS *Walk-In* EXCELCHEM Courier Fed-Ex Other:____

Transported In: *Ice Chest* Box Hand

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other:_____

Has chilling process begun? Y N Samples Received: Chilled to Touch / Ambient / C

Temperature of Samples (°C): 9 Ice Chest Temperature(s) (°C): 5

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	X			
Did all bottle labels agree with COC?		X		SEE EMAIL BELOW
Were correct containers used for the tests requested?	X			
Were correct preservations used for the tests requested?			X	
Was a sufficient amount of sample sent for tests indicated?	X			
Were bubbles present in VOA Vials?: **(Volatile Methods Only)**			X	

Section 3 – Summa/Flow regulator Info.

Used Summa#:

Unused Summa#:

Cleaning Summa#:

Regulator#:

N/A

Was there any visual damage to summa canisters **or** flow regulators? **Explain.**

Section 4 – COC Info.

	Completed Yes	Completed No	Info From Container		Completed Yes	Completed No	Comments
Was COC Received	X			Analysis Requested	X	X	Missing on pg. 5 -
Date Sampled	X			Samples arrived within holding time	X		
Time Sampled	X			Any hold times less than 72 hrs		X	
Sample ID	X			Client Name	X		
Rush TAT		X		Address/Telephone #	X		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: Yes No *N/A* Notified by: Mindy Somers

Explanations / Comments:

Please see email attached scanned and attached

Samples Labeled by: *MS*
Bin #s: S21
COC Scanned/Attached by: *MS*
Sample labels reviewed by: MS

Filled Out by: Mindy Somers **Date:** 3/14/16 **Time:** 17:50

Excelchem Environmental Lab.

Laboratory Representative

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NCE	Project:	Port of Richmond (Shipyard No. 3)	
8795 Folsom Boulevard, Suite 250	Project Number:	H1-141124	Date Reported:
Sacramento, CA 95826	Project Manager:	Brett Bardsley	03/23/16 11:11

Front Desk

From: Brett Bardsley <BBardsley@ncenet.com>
Sent: Tuesday, March 15, 2016 10:11 AM
To: Front Desk
Subject: RE: Project issues with samples

Hi Mindy,

Thank you for checking the samples. Please do the following:

- Add B-3-1.5 to the chain of custody and analyzed it for total arsenic and total lead.
- Make the sample that had the pen markings smeared off B-17-0.5.
- Analyze the samples on Page 5 for total arsenic and total lead.

Regards,

NCE
Brett Bardsley, P.G.
Senior Geologist
p (916) 388-5655
f (916) 388-5676 **e** bbardsley@ncenet.com
NCE
8795 Folsom Blvd., Suite 250, Sacramento, CA 95826
www.ncenet.com
Collaboration. Commitment. Confidence.SM

From: Front Desk [mailto:FrontDesk@excelchem.net]
Sent: Monday, March 14, 2016 7:46 PM
To: Brett Bardsley
Subject: Project issues with samples

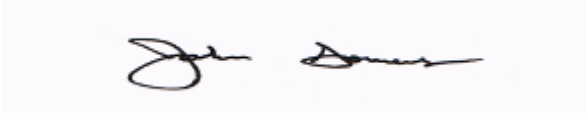
Hello Mr. Bardsley,
Your samples are all logged in but we have a couple concerns that we need help with fixing.

1) Received Sample B-3-1.5 @ 11:12 hours but this is not on the chain of custody. Do you want us to add it arsenic and lead?
2) Sample B-17-0.5 @ 8:43 (Page 3 at the top) we do not see a sample for this. With that said see below.
3) Received a sample with no information on it. The pen markings have smeared off. Do see markings of a date 03/09/11. If I look real hard I can see an 084 marking as well.
4) Is it possible this sample is B-17-0.5?
5) Page 5 does not have any metals checked. Do you want these analyzed for the arsenic and lead.

Thank you,
Mindy Somers
Excelchem Environmental Lab
1135 West Sunset Blvd., Suite A

1

Excelchem Environmental Lab.



Laboratory Representative

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EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449

ELAP Certificate No. : 2119

28 June 2016

Ryan Shafer

Nichols Consulting Engineers

8795 Folsom Blvd., Suite 250

Sacramento, CA 95826

RE: EBRPD SF Bay Trail

Work order number:1606006

Enclosed are the results of analyses for samples received by the laboratory on 06/01/16 14:54. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

John Somers, Lab Director

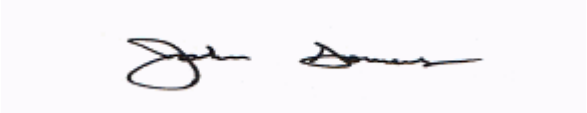
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-36B-0	1606006-01	Soil	05/31/16 09:50	06/01/16 14:54
B-36B-1.5	1606006-02	Soil	05/31/16 09:51	06/01/16 14:54
B-36A-0	1606006-03	Soil	05/31/16 09:53	06/01/16 14:54
B-36A-1.5	1606006-04	Soil	05/31/16 09:55	06/01/16 14:54
B-37B-0	1606006-05	Soil	05/31/16 10:10	06/01/16 14:54
B-37B-1.5	1606006-06	Soil	05/31/16 10:11	06/01/16 14:54
B-37C-0	1606006-07	Soil	05/31/16 10:16	06/01/16 14:54
B-37C-1.5	1606006-08	Soil	05/31/16 10:18	06/01/16 14:54
B-37A-0	1606006-09	Soil	05/31/16 10:21	06/01/16 14:54
B-37A-1.5	1606006-10	Soil	05/31/16 10:22	06/01/16 14:54
B-33B-0	1606006-11	Soil	05/31/16 10:30	06/01/16 14:54
B-33B-1.5	1606006-12	Soil	05/31/16 10:32	06/01/16 14:54
B-33A-0.2	1606006-13	Soil	05/31/16 10:34	06/01/16 14:54
B-33A-1.5	1606006-14	Soil	05/31/16 10:36	06/01/16 14:54
B-38C-0.5	1606006-15	Soil	05/31/16 10:48	06/01/16 14:54
B-38C-1.5	1606006-16	Soil	05/31/16 10:50	06/01/16 14:54
B-38B-0.2	1606006-17	Soil	05/31/16 10:58	06/01/16 14:54
B-38B-1.5	1606006-18	Soil	05/31/16 11:00	06/01/16 14:54
B-38A-0.5	1606006-19	Soil	05/31/16 11:03	06/01/16 14:54
B-38A-1.5	1606006-20	Soil	05/31/16 11:05	06/01/16 14:54
B-39C-0	1606006-21	Soil	05/31/16 11:14	06/01/16 14:54
B-39C-1.5	1606006-22	Soil	05/31/16 11:15	06/01/16 14:54
B-39B-0	1606006-23	Soil	05/31/16 11:16	06/01/16 14:54
B-39B-1.5	1606006-24	Soil	05/31/16 11:18	06/01/16 14:54
B-39A-0	1606006-25	Soil	05/31/16 11:21	06/01/16 14:54
B-39A-1.5	1606006-26	Soil	05/31/16 11:22	06/01/16 14:54
B-40C-0.2	1606006-27	Soil	05/31/16 11:45	06/01/16 14:54
B-40C-1.5	1606006-28	Soil	05/31/16 11:46	06/01/16 14:54
B-40B-0.2	1606006-29	Soil	05/31/16 11:48	06/01/16 14:54

Excelchem Environmental Lab.



Laboratory Representative

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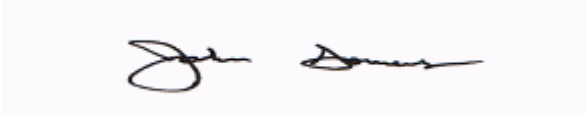
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-40B-1.5	1606006-30	Soil	05/31/16 11:49	06/01/16 14:54
B-40A-0.2	1606006-31	Soil	05/31/16 11:53	06/01/16 14:54
B-40A-1.5	1606006-32	Soil	05/31/16 11:54	06/01/16 14:54
B-17B-0.4	1606006-33	Soil	05/31/16 11:59	06/01/16 14:54
B-17B-1.5	1606006-34	Soil	05/31/16 12:00	06/01/16 14:54
B-17A-0.4	1606006-35	Soil	05/31/16 12:02	06/01/16 14:54
B-17A-1.5	1606006-36	Soil	05/31/16 12:04	06/01/16 14:54
B-16B-0	1606006-37	Soil	05/31/16 12:09	06/01/16 14:54
B-16B-1.5	1606006-38	Soil	05/31/16 12:10	06/01/16 14:54
B-16A-0	1606006-39	Soil	05/31/16 12:15	06/01/16 14:54
B-16A-1.5	1606006-40	Soil	05/31/16 12:17	06/01/16 14:54
B-41C-0	1606006-41	Soil	05/31/16 12:20	06/01/16 14:54
B-41C-1.5	1606006-42	Soil	05/31/16 12:21	06/01/16 14:54
B-41B-0	1606006-43	Soil	05/31/16 12:24	06/01/16 14:54
B-41B-1.5	1606006-44	Soil	05/31/16 12:26	06/01/16 14:54
B-41A-0	1606006-45	Soil	05/31/16 12:28	06/01/16 14:54
B-41A-1.5	1606006-46	Soil	05/31/16 12:29	06/01/16 14:54
B-15B-0	1606006-47	Soil	05/31/16 12:32	06/01/16 14:54
B-15B-1.5	1606006-48	Soil	05/31/16 12:33	06/01/16 14:54
B-15A-0	1606006-49	Soil	05/31/16 12:40	06/01/16 14:54
B-15A-1.5	1606006-50	Soil	05/31/16 12:42	06/01/16 14:54
B-43A-0	1606006-51	Soil	05/31/16 13:15	06/01/16 14:54
B-43A-1.5	1606006-52	Soil	05/31/16 13:16	06/01/16 14:54
B-43B-0	1606006-53	Soil	05/31/16 13:19	06/01/16 14:54
B-43A-1.5	1606006-54	Soil	05/31/16 13:21	06/01/16 14:54
B-43C-0	1606006-55	Soil	05/31/16 13:25	06/01/16 14:54
B-43C-1.5	1606006-56	Soil	05/31/16 13:27	06/01/16 14:54
B-42A-0	1606006-57	Soil	05/31/16 13:35	06/01/16 14:54
B-42A-1.5	1606006-58	Soil	05/31/16 13:37	06/01/16 14:54

Excelchem Environmental Lab.



Laboratory Representative

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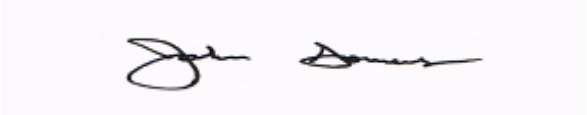
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-42B-0	1606006-59	Soil	05/31/16 13:38	06/01/16 14:54
B-42B-1.5	1606006-60	Soil	05/31/16 13:40	06/01/16 14:54
B-42C-0	1606006-61	Soil	05/31/16 13:42	06/01/16 14:54
B-42C-1.5	1606006-62	Soil	05/31/16 13:43	06/01/16 14:54
B-47C-0	1606006-63	Soil	05/31/16 14:02	06/01/16 14:54
B-47C-1.5	1606006-64	Soil	05/31/16 14:03	06/01/16 14:54
B-47B-0	1606006-65	Soil	05/31/16 14:06	06/01/16 14:54
B-47B-1.5	1606006-66	Soil	05/31/16 14:08	06/01/16 14:54
B-47A-1.5	1606006-67	Soil	05/31/16 14:14	06/01/16 14:54
B-11A-1.5	1606006-68	Soil	05/31/16 14:21	06/01/16 14:54
B-11A-0.2	1606006-69	Soil	05/31/16 14:19	06/01/16 14:54
B-47A-0	1606006-70	Soil	05/31/16 14:13	06/01/16 14:54
B-11B-0	1606006-71	Soil	05/31/16 14:23	06/01/16 14:54
B-11B-1.5	1606006-72	Soil	05/31/16 14:24	06/01/16 14:54
B-46A-0	1606006-73	Soil	05/31/16 14:25	06/01/16 14:54
B-46A-1.5	1606006-74	Soil	05/31/16 14:27	06/01/16 14:54
B-46B-0	1606006-75	Soil	05/31/16 14:34	06/01/16 14:54
B-46B-1.5	1606006-76	Soil	05/31/16 14:35	06/01/16 14:54
B-46C-0	1606006-77	Soil	05/31/16 14:39	06/01/16 14:54
B-46C-1.5	1606006-78	Soil	05/31/16 14:41	06/01/16 14:54
B-45C-0.2	1606006-79	Soil	05/31/16 14:46	06/01/16 14:54
B-45B-0	1606006-80	Soil	05/31/16 14:51	06/01/16 14:54
B-45B-1.5	1606006-81	Soil	05/31/16 14:52	06/01/16 14:54
B-45A-0	1606006-82	Soil	05/31/16 14:57	06/01/16 14:54
B-45A-1.5	1606006-83	Soil	05/31/16 14:59	06/01/16 14:54
B-44A-0.5	1606006-84	Soil	06/01/16 09:12	06/01/16 14:54
B-44A-1.2	1606006-85	Soil	06/01/16 09:32	06/01/16 14:54
B-44B-0.5	1606006-86	Soil	06/01/16 09:35	06/01/16 14:54
B-44B-1	1606006-87	Soil	06/01/16 09:38	06/01/16 14:54

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-44C-0.5	1606006-88	Soil	06/01/16 09:38	06/01/16 14:54
B-44C-1.5	1606006-89	Soil	06/01/16 09:42	06/01/16 14:54
B-35B-0.5	1606006-90	Soil	06/01/16 09:46	06/01/16 14:54
B-35B-1.3	1606006-91	Soil	06/01/16 09:51	06/01/16 14:54
B-35A-0.5	1606006-92	Soil	06/01/16 09:53	06/01/16 14:54
B-35A-1	1606006-93	Soil	06/01/16 09:55	06/01/16 14:54

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Excelchem Environmental Labs

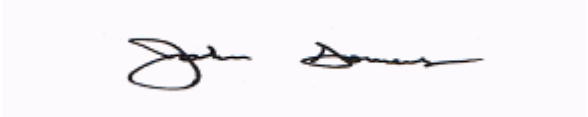
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-36B-0

1606006-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.4**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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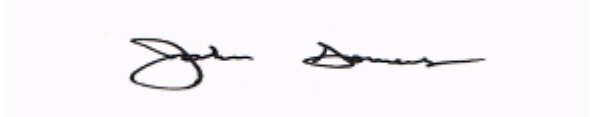
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-36B-1.5
1606006-02 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-36A-0
1606006-03 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.9**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-36A-1.5

1606006-04 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.4**	2.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

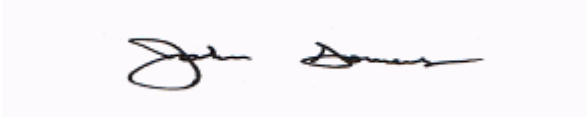
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-37B-0

1606006-05 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.7**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-37B-1.5

1606006-06 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.5**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-37C-0

1606006-07 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								
Naphthalene	ND	0.0250	mg/kg	AZF0171	06/07/16	06/18/16	EPA 8270 SIM	
Acenaphthylene	ND	0.0250	"	"	"	"	"	
Acenaphthene	ND	0.0250	"	"	"	"	"	
Fluorene	ND	0.0250	"	"	"	"	"	
Phenanthrene	ND	0.0250	"	"	"	"	"	
Anthracene	ND	0.0250	"	"	"	"	"	
Fluoranthene	ND	0.0250	"	"	"	"	"	
Pyrene	ND	0.0250	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0250	"	"	"	"	"	
Chrysene	ND	0.0250	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0250	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0250	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0250	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0250	"	"	"	"	"	
Surrogate: Terphenyl-dl4	*94.1 %*	% Recovery Limits		*10-120*			*"*	
Total Recoverable Metals								
Arsenic	**4.5**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-37C-1.5
1606006-08 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.5**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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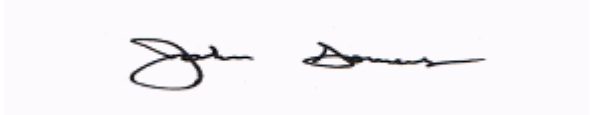
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-37A-0
1606006-09 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.6**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-37A-1.5
1606006-10 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.3**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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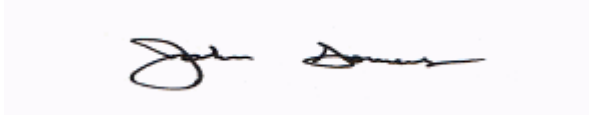
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-33B-0
1606006-11 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.9**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-33B-1.5

1606006-12 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.6**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-33A-0.2
1606006-13 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.9**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-33A-1.5

1606006-14 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.6**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

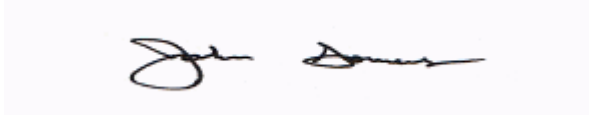
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-38C-0.5

1606006-15 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.2**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

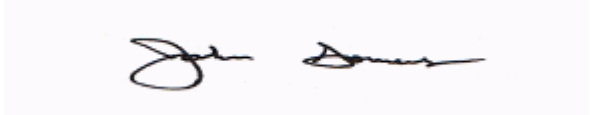
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-38C-1.5

1606006-16 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.6**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-38B-0.2
1606006-17 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.4**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

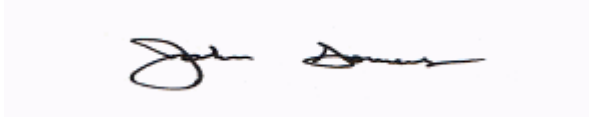
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-38B-1.5

1606006-18 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.4**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-38A-0.5

1606006-19 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.8**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

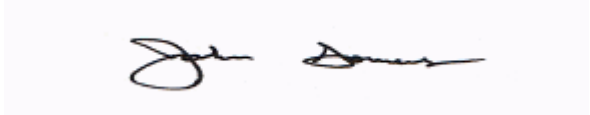
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-38A-1.5

1606006-20 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0170	06/13/16	06/16/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-39C-0

1606006-21 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.7**	1.0	mg/kg	AZF0202	06/13/16	06/17/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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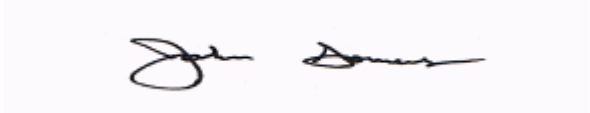
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-39C-1.5
1606006-22 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.8**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

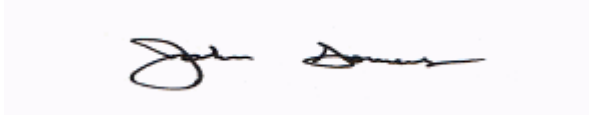
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-39B-0

1606006-23 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**15.0**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-39B-1.5

1606006-24 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**12.1**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

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Laboratory Representative

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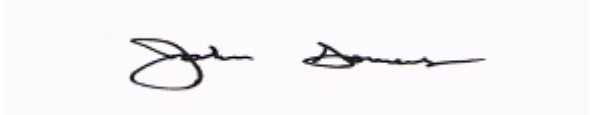
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-39A-0
1606006-25 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**43.3**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-39A-1.5

1606006-26 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**39.4**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

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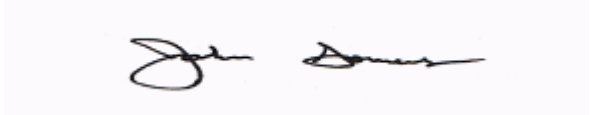
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-40C-0.2

1606006-27 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.4**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-40C-1.5

1606006-28 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.1**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-40B-0.2

1606006-29 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.4**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-40B-1.5
1606006-30 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	ND	10.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

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Laboratory Representative

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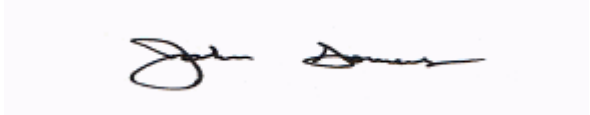
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-40A-0.2
1606006-31 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**1.6**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-40A-1.5

1606006-32 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.8**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-17B-0.4

1606006-33 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.9**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-17B-1.5

1606006-34 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.4**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-17A-0.4
1606006-35 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-17A-1.5

1606006-36 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.1**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-16B-0

1606006-37 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**29.4**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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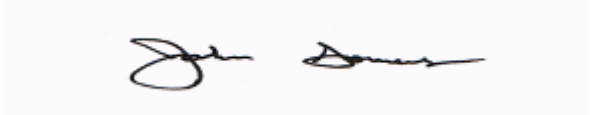
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-16B-1.5
1606006-38 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**23.3**	1.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-16A-0

1606006-39 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.7**	2.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-16A-1.5
1606006-40 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.3**	2.0	mg/kg	AZF0202	06/13/16	06/20/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

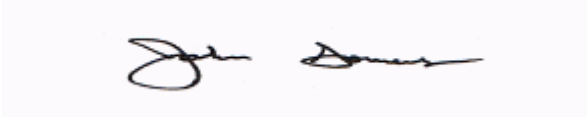
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-41C-0

1606006-41 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**36.2**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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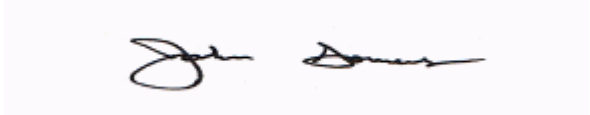
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-41C-1.5
1606006-42 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.3**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-41B-0

1606006-43 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.8**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-41B-1.5

1606006-44 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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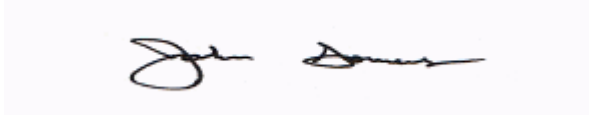
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-41A-0
1606006-45 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.3**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-41A-1.5

1606006-46 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.1**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-15B-0

1606006-47 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-15B-1.5

1606006-48 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**9.9**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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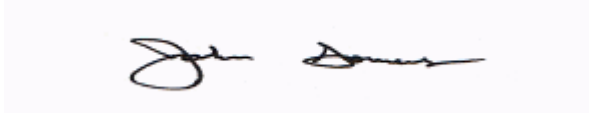
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-15A-0
1606006-49 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**8.9**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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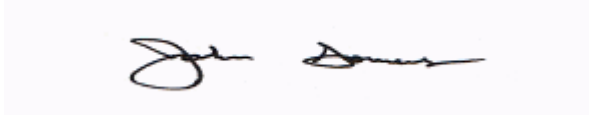
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-15A-1.5
1606006-50 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**8.3**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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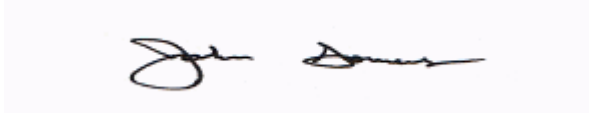
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-43A-0
1606006-51 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.6**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-43A-1.5

1606006-52 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.8**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-43B-0

1606006-53 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								
Naphthalene	ND	0.0250	mg/kg	AZF0171	06/07/16	06/18/16	EPA 8270 SIM	
Acenaphthylene	ND	0.0250	"	"	"	"	"	
Acenaphthene	ND	0.0250	"	"	"	"	"	
Fluorene	ND	0.0250	"	"	"	"	"	
Phenanthrene	**0.0873**	0.0250	"	"	"	"	"	
Anthracene	ND	0.0250	"	"	"	"	"	
Fluoranthene	**0.0943**	0.0250	"	"	"	"	"	
Pyrene	**0.0837**	0.0250	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0250	"	"	"	"	"	
Chrysene	ND	0.0250	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0250	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0250	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0250	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0250	"	"	"	"	"	
Surrogate: Terphenyl-dl4	*107 %*	% Recovery Limits		*10-120*			*"*	
Total Recoverable Metals								
Arsenic	**5.9**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

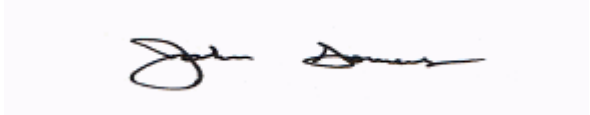
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-43A-1.5

1606006-54 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**10.7**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

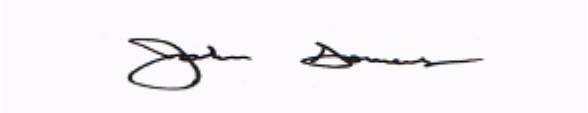
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-43C-0

1606006-55 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.5**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



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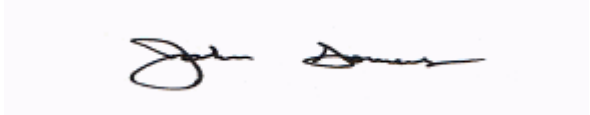
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-43C-1.5

1606006-56 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.0**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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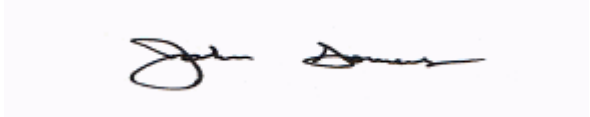
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-42A-0
1606006-57 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**9.3**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-42A-1.5
1606006-58 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**12.1**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

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Laboratory Representative

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Excelchem Environmental Labs

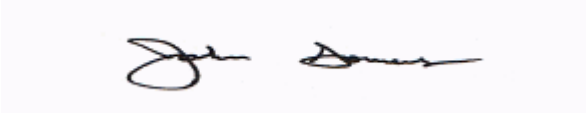
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-42B-0

1606006-59 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								
Naphthalene	**0.128**	0.0250	mg/kg	AZF0171	06/07/16	06/18/16	EPA 8270 SIM	
Acenaphthylene	**0.204**	0.0250	"	"	"	"	"	
Acenaphthene	**0.0333**	0.0250	"	"	"	"	"	
Fluorene	**0.282**	0.0250	"	"	"	"	"	
Phenanthrene	**1.96**	0.0250	"	"	"	"	"	
Anthracene	**2.39**	0.0250	"	"	"	"	"	
Fluoranthene	**3.49**	0.0250	"	"	"	"	"	
Pyrene	**2.74**	0.0250	"	"	"	"	"	
Benzo (a) anthracene	**1.47**	0.0250	"	"	"	"	"	
Chrysene	**2.62**	0.0250	"	"	"	"	"	
Benzo (b) fluoranthene	**1.87**	0.0250	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (a) pyrene	**1.23**	0.0250	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**0.798**	0.0250	"	"	"	"	"	
Dibenz (a,h) anthracene	**0.283**	0.0250	"	"	"	"	"	
Benzo (g,h,i) perylene	**0.713**	0.0250	"	"	"	"	"	
Surrogate: Terphenyl-dl4	*92.9 %*	% Recovery Limits		*10-120*			"	
Total Recoverable Metals								
Arsenic	**13.4**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

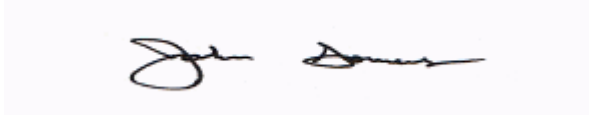
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-42B-1.5

1606006-60 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.0**	1.0	mg/kg	AZF0283	06/15/16	06/24/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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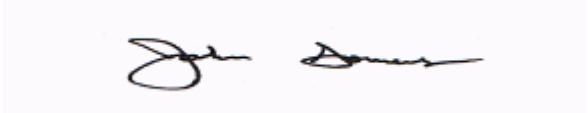
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-42C-0

1606006-61 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.9**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.



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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-42C-1.5

1606006-62 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.0**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-47C-0

1606006-63 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-47C-1.5

1606006-64 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.5**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-47B-0

1606006-65 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								
Naphthalene	ND	0.0250	mg/kg	AZF0171	06/07/16	06/18/16	EPA 8270 SIM	
Acenaphthylene	ND	0.0250	"	"	"	"	"	
Acenaphthene	ND	0.0250	"	"	"	"	"	
Fluorene	ND	0.0250	"	"	"	"	"	
Phenanthrene	ND	0.0250	"	"	"	"	"	
Anthracene	ND	0.0250	"	"	"	"	"	
Fluoranthene	ND	0.0250	"	"	"	"	"	
Pyrene	ND	0.0250	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0250	"	"	"	"	"	
Chrysene	ND	0.0250	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0250	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0250	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0250	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0250	"	"	"	"	"	
Surrogate: Terphenyl-dl4	*105 %*	% Recovery Limits		*10-120*			*"*	
Total Recoverable Metals								
Arsenic	**5.4**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-47B-1.5

1606006-66 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.4**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-47A-1.5

1606006-67 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.2**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-11A-1.5

1606006-68 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.0**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-11A-0.2

1606006-69 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.4**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-47A-0
1606006-70 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.4**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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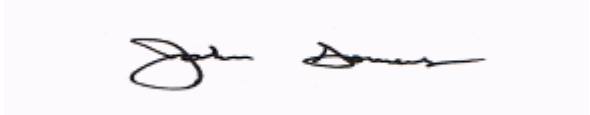
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-11B-0
1606006-71 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**16.2**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-11B-1.5

1606006-72 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**15.4**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-46A-0
1606006-73 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**5.2**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-46A-1.5

1606006-74 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.1**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.

Laboratory Representative

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Excelchem Environmental Labs

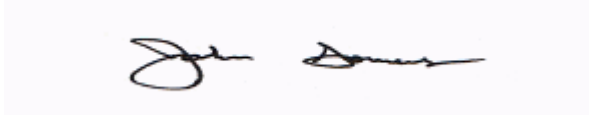
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-46B-0

1606006-75 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**39.9**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

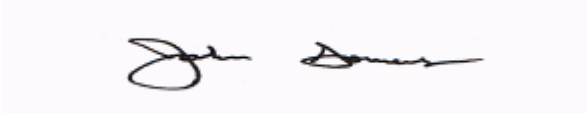
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-46B-1.5

1606006-76 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**13.6**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.



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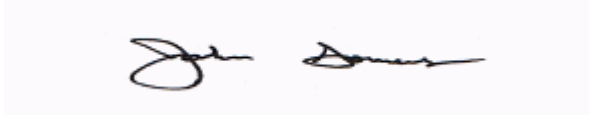
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-46C-0

1606006-77 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.1**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

Excelchem Environmental Lab.



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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-46C-1.5

1606006-78 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.3**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-45C-0.2

1606006-79 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**9.2**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

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Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-45B-0

1606006-80 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								
Naphthalene	ND	0.0250	mg/kg	AZF0171	06/07/16	06/18/16	EPA 8270 SIM	
Acenaphthylene	ND	0.0250	"	"	"	"	"	
Acenaphthene	ND	0.0250	"	"	"	"	"	
Fluorene	ND	0.0250	"	"	"	"	"	
Phenanthrene	ND	0.0250	"	"	"	"	"	
Anthracene	ND	0.0250	"	"	"	"	"	
Fluoranthene	ND	0.0250	"	"	"	"	"	
Pyrene	ND	0.0250	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0250	"	"	"	"	"	
Chrysene	ND	0.0250	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0250	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0250	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0250	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0250	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0250	"	"	"	"	"	
Surrogate: Terphenyl-dl4	*95.6 %*	% Recovery Limits		*10-120*			*"*	
Total Recoverable Metals								
Arsenic	**11.8**	1.0	mg/kg	AZF0284	06/16/16	06/25/16	EPA 6010B	

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Laboratory Representative

Excelchem Environmental Labs

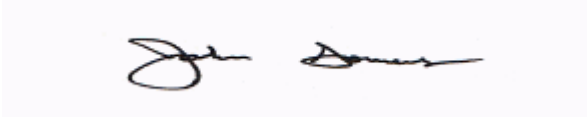
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-45B-1.5

1606006-81 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**10.4**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

Excelchem Environmental Lab.



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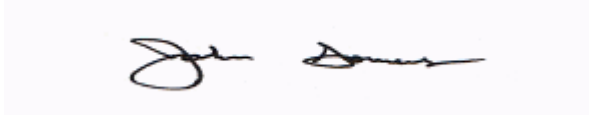
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-45A-0
1606006-82 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**7.9**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-45A-1.5

1606006-83 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**4.2**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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Laboratory Representative

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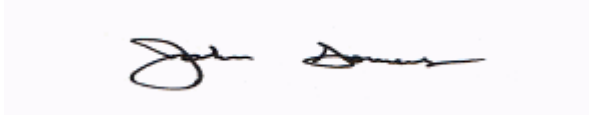
Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-44A-0.5

1606006-84 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**6.4**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

Excelchem Environmental Lab.



Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-44A-1.2
1606006-85 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.7**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-44B-0.5

1606006-86 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.0**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

Excelchem Environmental Lab.

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Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-44B-1
1606006-87 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.4**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-44C-0.5

1606006-88 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**3.8**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-44C-1.5

1606006-89 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.9**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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Laboratory Representative

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-35B-0.5

1606006-90 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**15.6**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-35B-1.3
1606006-91 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**28.4**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-35A-0.5

1606006-92 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.1**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

B-35A-1
1606006-93 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Arsenic	**2.9**	1.0	mg/kg	AZF0237	06/16/16	06/22/16	EPA 6010B	

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8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZF0171 - EPA 8270 SIM										
Blank (AZF0171-BLK1)				Prepared: 06/07/16 Analyzed: 06/18/16						
Surrogate: Terphenyl-dl4	*1.92*		*mg/kg*	*1.67*		*115*	*10-120*			
Naphthalene	ND	0.0250	"							
Acenaphthylene	ND	0.0250	"							
Acenaphthene	ND	0.0250	"							
Fluorene	ND	0.0250	"							
Phenanthrene	ND	0.0250	"							
Anthracene	ND	0.0250	"							
Fluoranthene	ND	0.0250	"							
Pyrene	ND	0.0250	"							
Benzo (a) anthracene	ND	0.0250	"							
Chrysene	ND	0.0250	"							
Benzo (b) fluoranthene	ND	0.0250	"							
Benzo (k) fluoranthene	ND	0.0250	"							
Benzo (a) pyrene	ND	0.0250	"							
Indeno (1,2,3-cd) pyrene	ND	0.0250	"							
Dibenz (a,h) anthracene	ND	0.0250	"							
Benzo (g,h,i) perylene	ND	0.0250	"							
LCS (AZF0171-BS1)				Prepared: 06/22/16 Analyzed: 06/23/16						
Surrogate: Terphenyl-dl4	*1.93*		*mg/kg*	*1.67*		*116*	*10-120*			
Acenaphthylene	1.48	0.0250	"	1.67		88.6	20-125			
Acenaphthene	1.60	0.0250	"	1.67		95.8	20-125			
Pyrene	1.75	0.0250	"	1.67		105	20-125			
Benzo (a) anthracene	2.05	0.0250	"	1.67		123	20-125			
Benzo (b) fluoranthene	1.98	0.0250	"	1.67		119	20-125			
Benzo (k) fluoranthene	1.98	0.0250	"	1.67		119	20-125			
Benzo (a) pyrene	1.89	0.0250	"	1.67		113	20-125			
Benzo (g,h,i) perylene	2.01	0.0250	"	1.67		121	20-125			

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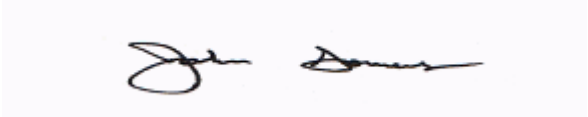

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8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZF0171 - EPA 8270 SIM										
LCS Dup (AZF0171-BSD1)				Prepared: 06/22/16 Analyzed: 06/23/16						
Surrogate: Terphenyl-dl4	*1.39*		*mg/kg*	*1.67*		*83.6*	*10-120*			
Acenaphthylene	1.12	0.0250	"	1.67		66.9	20-125	27.9	20	QR-02
Acenaphthene	1.12	0.0250	"	1.67		67.3	20-125	35.0	20	QR-02
Pyrene	1.29	0.0250	"	1.67		77.2	20-125	30.7	20	QR-02
Benzo (a) anthracene	1.51	0.0250	"	1.67		90.5	20-125	30.5	20	QR-02
Benzo (b) fluoranthene	1.39	0.0250	"	1.67		83.3	20-125	35.1	20	QR-02
Benzo (k) fluoranthene	1.49	0.0250	"	1.67		89.3	20-125	28.1	20	QR-02
Benzo (a) pyrene	1.48	0.0250	"	1.67		88.5	20-125	24.5	20	QR-02
Benzo (g,h,i) perylene	2.20	0.0250	"	1.67		132	20-125	9.02	20	Z-01
Matrix Spike (AZF0171-MS1)		**Source: 1606006-53**		Prepared: 06/22/16 Analyzed: 06/23/16						
Surrogate: Terphenyl-dl4	*1.71*		*mg/kg*	*1.67*		*102*	*10-120*			
Acenaphthylene	1.59	0.0250	"	1.67	ND	95.4	20-125			
Acenaphthene	1.70	0.0250	"	1.67	ND	102	20-125			
Pyrene	2.11	0.0250	"	1.67	0.0837	122	20-125			
Benzo (a) anthracene	2.19	0.0250	"	1.67	0.0210	130	20-125			QR-07
Benzo (b) fluoranthene	2.49	0.0250	"	1.67	0.0223	148	20-125			QR-07
Benzo (k) fluoranthene	2.15	0.0250	"	1.67	0.0137	128	20-125			QR-07
Benzo (a) pyrene	2.22	0.0250	"	1.67	0.0160	132	20-125			QR-07
Benzo (g,h,i) perylene	1.74	0.0250	"	1.67	0.0200	103	20-125			
Matrix Spike Dup (AZF0171-MSD1)		**Source: 1606006-53**		Prepared: 06/22/16 Analyzed: 06/23/16						
Surrogate: Terphenyl-dl4	*1.64*		*mg/kg*	*1.67*		*98.3*	*10-120*			
Acenaphthylene	1.61	0.0250	"	1.67	ND	96.3	20-125	0.960	20	
Acenaphthene	1.66	0.0250	"	1.67	ND	99.8	20-125	2.02	20	
Pyrene	3.09	0.0250	"	1.67	0.0837	180	20-125	37.6	20	QM-11
Benzo (a) anthracene	2.49	0.0250	"	1.67	0.0210	148	20-125	12.9	20	QR-07
Benzo (b) fluoranthene	2.95	0.0250	"	1.67	0.0223	176	20-125	17.2	20	QR-07
Benzo (k) fluoranthene	2.33	0.0250	"	1.67	0.0137	139	20-125	7.87	20	QR-07
Benzo (a) pyrene	2.55	0.0250	"	1.67	0.0160	152	20-125	13.8	20	QR-07
Benzo (g,h,i) perylene	1.74	0.0250	"	1.67	0.0200	103	20-125	0.0192	20	

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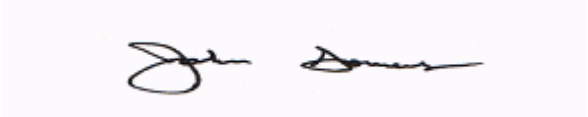

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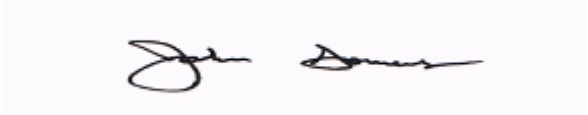
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZF0170 - EPA 6010B										
Blank (AZF0170-BLK1)				Prepared: 06/13/16 Analyzed: 06/16/16						
Arsenic	ND	1.0	mg/kg							
LCS (AZF0170-BS1)				Prepared: 06/13/16 Analyzed: 06/16/16						
Arsenic	95.0	1.0	mg/kg	100		95.0	80-120			
LCS Dup (AZF0170-BSD1)				Prepared: 06/13/16 Analyzed: 06/16/16						
Arsenic	95.8	1.0	mg/kg	100		95.8	80-120	0.859	25	
Matrix Spike (AZF0170-MS1)		**Source: 1606006-01**		Prepared: 06/13/16 Analyzed: 06/16/16						
Arsenic	79.3	1.0	mg/kg	100	6.45	72.9	75-125			QL-01
Matrix Spike Dup (AZF0170-MSD1)		**Source: 1606006-01**		Prepared: 06/13/16 Analyzed: 06/16/16						
Arsenic	76.3	1.0	mg/kg	100	6.45	69.9	75-125	3.80	25	QL-01
Batch AZF0202 - EPA 6010B										
Blank (AZF0202-BLK1)				Prepared: 06/13/16 Analyzed: 06/17/16						
Arsenic	ND	1.0	mg/kg							
LCS (AZF0202-BS1)				Prepared: 06/13/16 Analyzed: 06/17/16						
Arsenic	94.6	1.0	mg/kg	100		94.6	80-120			
LCS Dup (AZF0202-BSD1)				Prepared: 06/13/16 Analyzed: 06/27/16						
Arsenic	97.4	1.0	mg/kg	100		97.4	80-120	2.96	25	
Matrix Spike (AZF0202-MS1)		**Source: 1606006-21**		Prepared: 06/13/16 Analyzed: 06/17/16						
Arsenic	77.0	1.0	mg/kg	100	3.71	73.3	75-125			QL-01

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

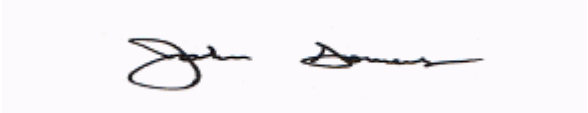
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZF0202 - EPA 6010B										
Matrix Spike Dup (AZF0202-MSD1)		**Source: 1606006-21**		Prepared: 06/13/16 Analyzed: 06/20/16						
Arsenic	81.3	1.0	mg/kg	100	3.71	77.6	75-125	5.47	25	
Batch AZF0237 - EPA 6010B										
Blank (AZF0237-BLK1)				Prepared: 06/16/16 Analyzed: 06/22/16						
Arsenic	ND	1.0	mg/kg							
LCS (AZF0237-BS1)				Prepared: 06/16/16 Analyzed: 06/22/16						
Arsenic	99.8	1.0	mg/kg	100		99.8	80-120			
LCS Dup (AZF0237-BSD1)				Prepared: 06/16/16 Analyzed: 06/22/16						
Arsenic	99.7	1.0	mg/kg	100		99.7	80-120	0.160	25	
Matrix Spike (AZF0237-MS1)		**Source: 1606006-81**		Prepared: 06/16/16 Analyzed: 06/22/16						
Arsenic	99.1	1.0	mg/kg	100	10.4	88.7	75-125			
Matrix Spike Dup (AZF0237-MSD1)		**Source: 1606006-81**		Prepared: 06/16/16 Analyzed: 06/22/16						
Arsenic	102	1.0	mg/kg	100	10.4	91.4	75-125	2.66	25	
Batch AZF0283 - EPA 6010B										
Blank (AZF0283-BLK1)				Prepared: 06/15/16 Analyzed: 06/24/16						
Arsenic	ND	1.0	mg/kg							
LCS (AZF0283-BS1)				Prepared: 06/15/16 Analyzed: 06/24/16						
Arsenic	103	1.0	mg/kg	100		103	80-120			

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AZF0283 - EPA 6010B										
LCS Dup (AZF0283-BSD1)				Prepared: 06/15/16 Analyzed: 06/24/16						
Arsenic	102	1.0	mg/kg	100		102	80-120	0.0975	25	
Matrix Spike (AZF0283-MS1)		**Source: 1606006-41**		Prepared: 06/15/16 Analyzed: 06/24/16						
Arsenic	131	1.0	mg/kg	100	36.2	95.1	75-125			
Matrix Spike Dup (AZF0283-MSD1)		**Source: 1606006-41**		Prepared: 06/15/16 Analyzed: 06/24/16						
Arsenic	138	1.0	mg/kg	100	36.2	101	75-125	4.69	25	
Batch AZF0284 - EPA 6010B										
Blank (AZF0284-BLK1)				Prepared: 06/16/16 Analyzed: 06/25/16						
Arsenic	ND	1.0	mg/kg							
LCS (AZF0284-BS1)				Prepared: 06/16/16 Analyzed: 06/25/16						
Arsenic	97.0	1.0	mg/kg	100		97.0	80-120			
LCS Dup (AZF0284-BSD1)				Prepared: 06/16/16 Analyzed: 06/25/16						
Arsenic	95.9	1.0	mg/kg	100		95.9	80-120	1.19	25	
Matrix Spike (AZF0284-MS1)		**Source: 1606006-61**		Prepared: 06/16/16 Analyzed: 06/25/16						
Arsenic	86.7	1.0	mg/kg	100	5.94	80.8	75-125			
Matrix Spike Dup (AZF0284-MSD1)		**Source: 1606006-61**		Prepared: 06/16/16 Analyzed: 06/25/16						
Arsenic	101	2.0	mg/kg	100	5.94	95.1	75-125	15.2	25	

Excelchem Environmental Lab.

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Laboratory Representative

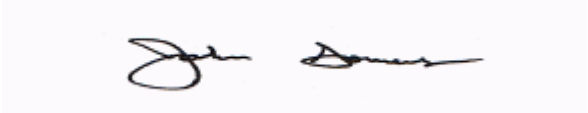
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

Notes and Definitions

Z-01	The LCSD value for this analyte was above acceptable QC parameters, however the CCV value was within normal limits.
QR-07	Recoveries are outside acceptable QA/QC parameters due to matrix interferences.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-11	The spike recovery and RPD for this analyte is out of QA/QC parameters due to matrix interferences.
QL-01	Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
ND	Analyte not detected at reporting limit.
NR	Not reported

Excelchem Environmental Lab.



Laboratory Representative

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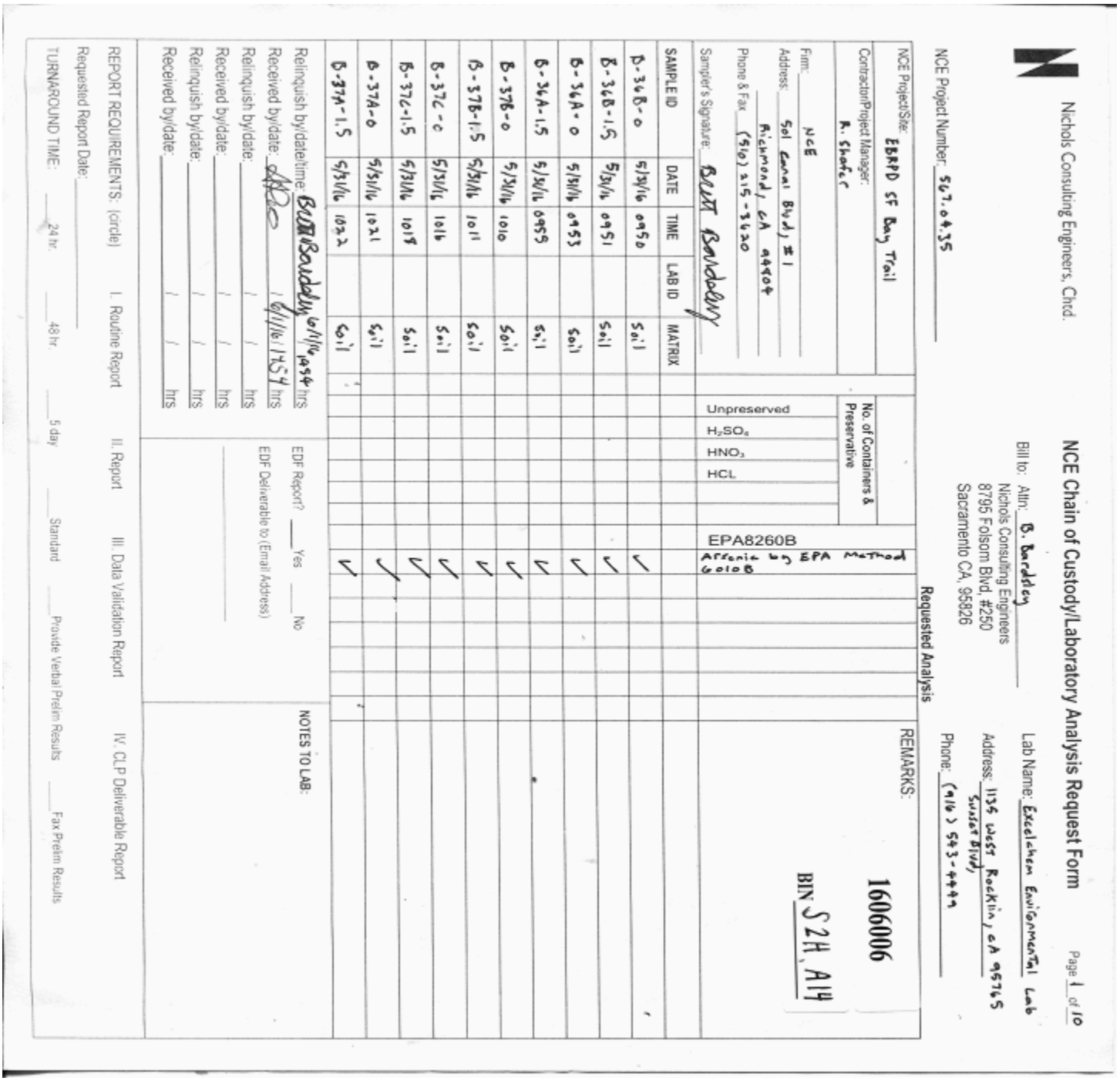
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 1 of 10

Bill to: Attn: B. Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1136 West Rocklin, CA 95765
Sunset Blvd
Phone: (916) 543-4444

NCE Project Number: 567.04.35

NCE Project/Site: EBRPD SF Bay Trail
Contractor/Project Manager: R. Shafer
Firm: NCE
Address: 501 Canal Blvd, #1 Richmond, CA 94804
Phone & Fax: (510) 215-3620
Sampler's Signature: Brett Bardsley

No. of Containers & Preservative: Unpreserved; H_2SO_4; HNO_3; HCL

Requested Analysis: EPA8260B EPA Method; Arsenic by Gelob

REMARKS: 1606006
BIN S2H, A14

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic by Gelob
B-368-0	5/31/16	0950		Soil					✓	
B-368-1.5	5/31/16	0951		Soil					✓	
B-36A-0	5/31/16	0953		Soil					✓	
B-36A-1.5	5/31/16	0959		Soil					✓	
B-378-0	5/31/16	1010		Soil					✓	
B-378-1.5	5/31/16	1011		Soil					✓	
B-37C-0	5/31/16	1016		Soil					✓	
B-37C-1.5	5/31/16	1018		Soil					✓	
B-37A-0	5/31/16	1021		Soil					✓	
B-37A-1.5	5/31/16	1022		Soil					✓	

Relinquish by/date/time: Brett Bardsley 6/1/16 1054 hrs
Received by/date: [illegible] 6/1/16 1454 hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report
Requested Report Date:
TURNAROUND TIME: 24 hr. 48 hr. 5 day Standard Provide Verbal Prelim Results Fax Prelim Results

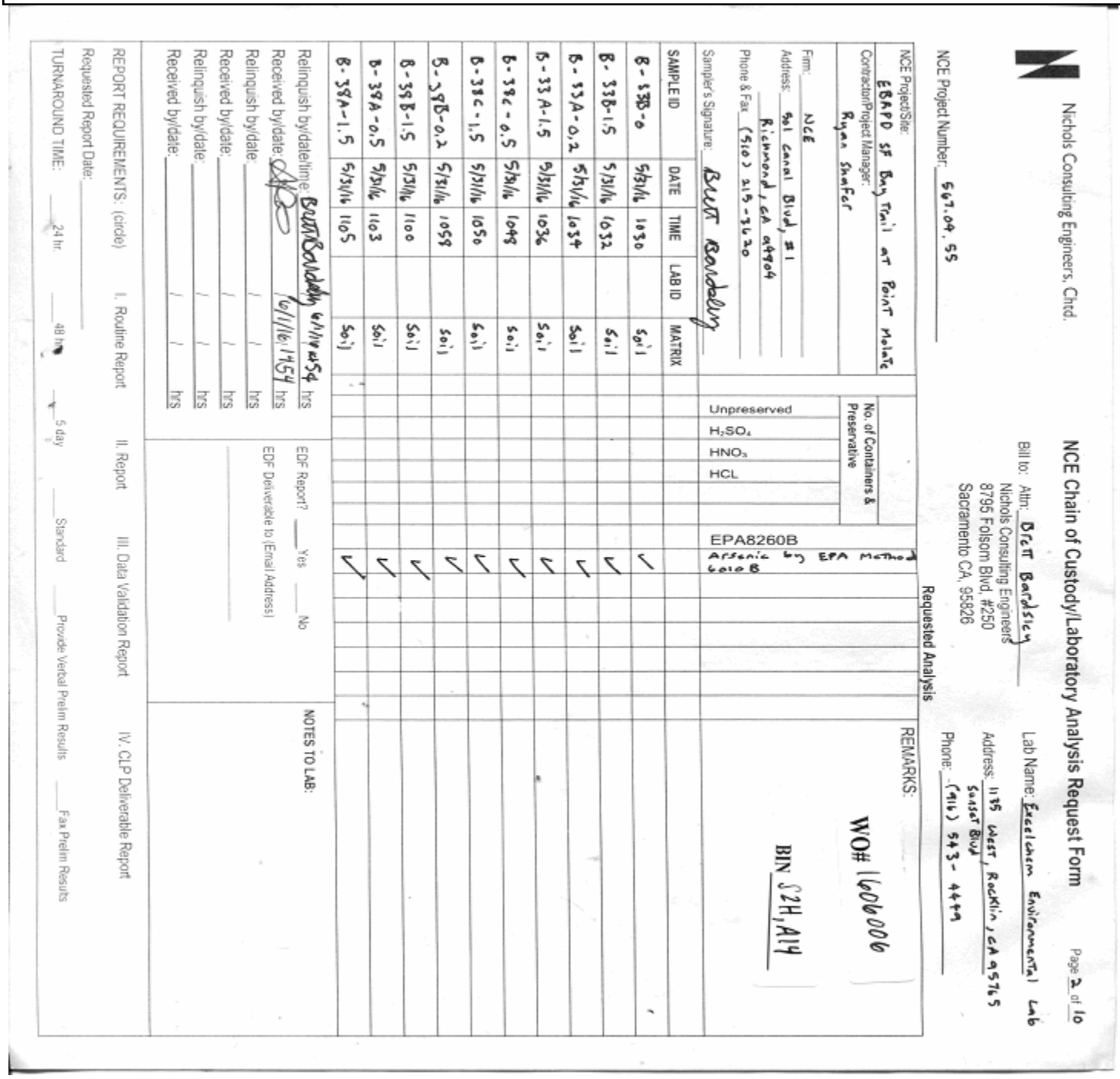
Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 2 of 10

Bill to: Attn: Brent Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd. #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 West, Rocklin, CA 95765
Sunset Blvd
Phone: (916) 543-4429

NCE Project Number: 567.09.55

NCE Project/Site: EBRPD SF Bay Trail at Point Molate
Contractor/Project Manager: Ryan Shafer
Firm: NCE
Address: 901 Canal Blvd, #1
Richmond, CA 94804
Phone & Fax: (510) 215-3620
Sampler's Signature: Brent Bardsley

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	Requested Analysis: EPA8260B	Arsenic by EPA Method 6010B
B-33B-0	5/31/16	1030		Soil					✓	
B-33B-1.5	5/31/16	1032		Soil					✓	
B-33A-0.2	5/31/16	1034		Soil					✓	
B-33A-1.5	5/31/16	1036		Soil					✓	
B-33C-0.5	5/31/16	1048		Soil					✓	
B-33C-1.5	5/31/16	1050		Soil					✓	
B-39B-0.2	5/31/16	1058		Soil					✓	
B-39B-1.5	5/31/16	1100		Soil					✓	
B-39A-0.5	5/31/16	1103		Soil					✓	
B-39A-1.5	5/31/16	1105		Soil					✓	

REMARKS: WO# 1606006
BIN S2H,A14

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Received by/date: 6/1/16 1454 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: 24 hr 48 hr 5 day Standard Provide Verbal Prelim Results Fax Prelim Results

Excelchem Environmental Lab.

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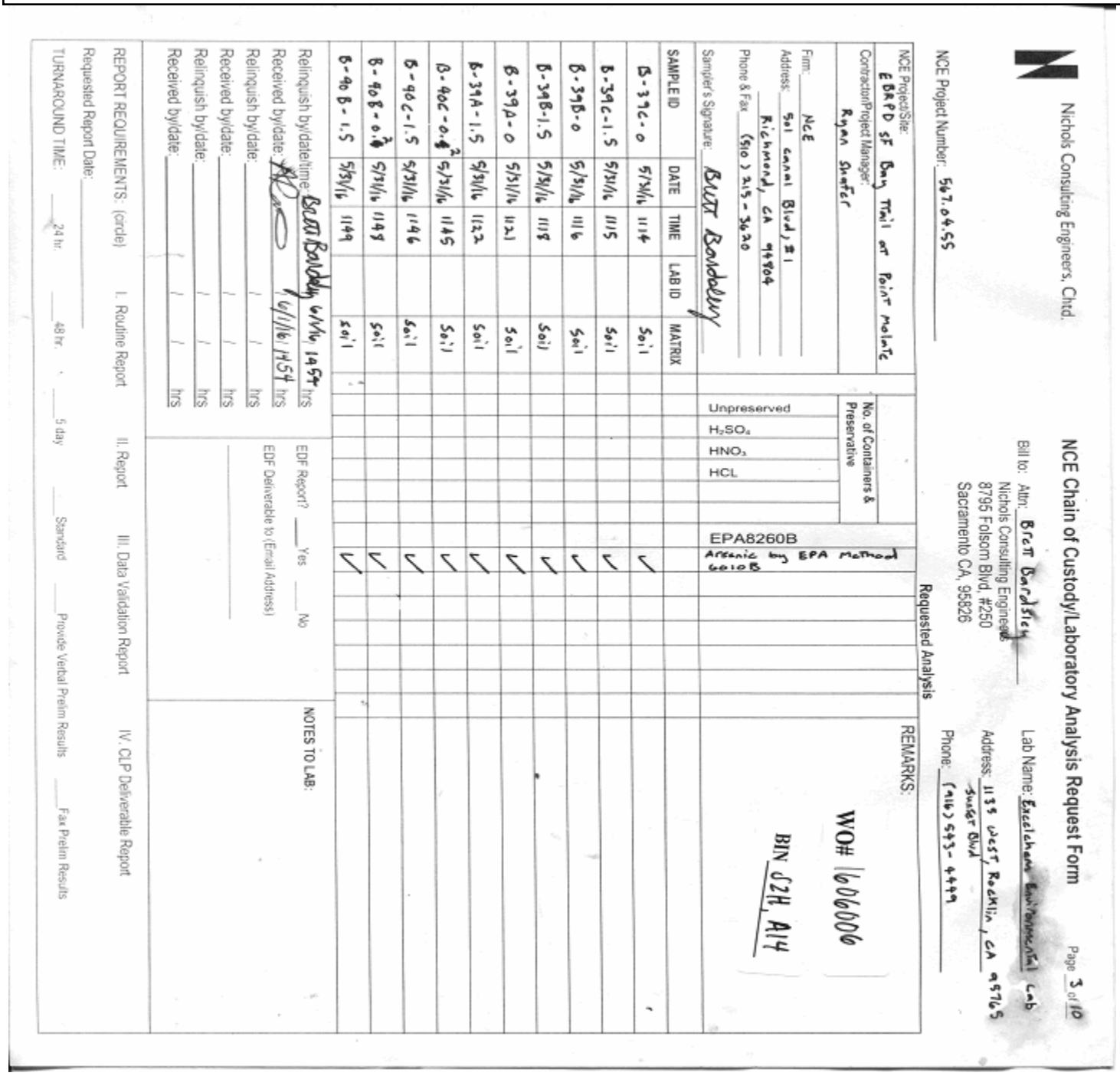
Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 3 of 10

NCE Project Number: 567.04.55

Bill to: Attn: Brett Bardsley

Nichols Consulting Engineers
8795 Folsom Blvd. #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab

Address: 1135 West Rockin, CA 95765
Sunset Blvd

Phone: (916) 543-4444

NCE Project/Site: EBRPD SF Bay Trail at Point Molate

Contractor/Project Manager: Ryan Shafer

Firm: NCE

Address: 501 canal Blvd, #1
Richmond, CA 94804

Phone & Fax: (510) 215-3620

Sampler's Signature: Brett Bardsley

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic by EPA Method 6010B	REMARKS:
B-39C-0	5/31/16	1114		Soil					✓		WO# 606006
B-39C-1.5	5/31/16	1115		Soil					✓		
B-39B-0	5/31/16	1116		Soil					✓		BIN J2H, A14
B-39B-1.5	5/31/16	1118		Soil					✓		
B-39A-0	5/31/16	1121		Soil					✓		
B-39A-1.5	5/31/16	1122		Soil					✓		
B-40C-0.5	5/31/16	1145		Soil					✓		
B-40C-1.5	5/31/16	1146		Soil					✓		
B-40B-0.5	5/31/16	1148		Soil					✓		
B-40B-1.5	5/31/16	1149		Soil					✓		

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Received by/date: [illegible] 6/1/16 1454 hrs

Relinquish by/date: _____ hrs

Received by/date: _____ hrs

Relinquish by/date: _____ hrs

Received by/date: _____ hrs

EDF Report? ___ Yes ___ No

EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date: _____

TURNAROUND TIME: ___24 hr ___48 hr ___5 day ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

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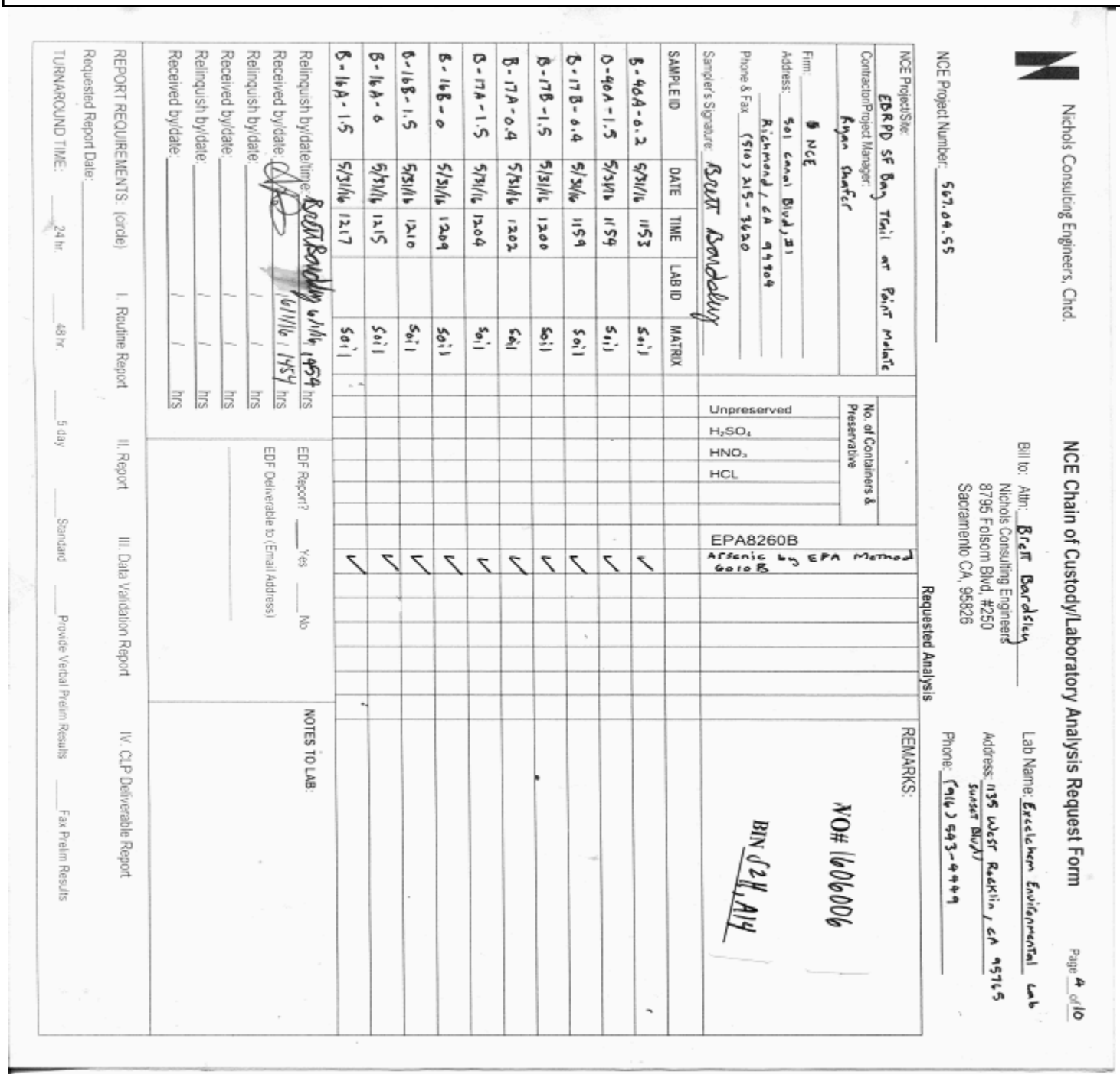
Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 4 of 10

NCE Project Number: 567.04.55

Bill to: Attn: Brett Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 West Rankin, CA 95765
Sunset Blvd
Phone: (916) 543-9999

NCE Project/Site: EBRPD SF Bay Trail at Point Molate
Contractor/Project Manager: Ryan Shafer
Firm: B NCE
Address: 501 Canal Blvd, #B1
Richmond, CA 94804
Phone & Fax: (510) 215-3620
Sampler's Signature: Brett Bardsley

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic by EPA Method 6010 B	REMARKS:
B-40A-0.2	5/31/16	1153		Soil					✓		NO# 1606006
B-40A-1.5	5/31/16	1159		Soil					✓		
B-17B-0.4	5/31/16	1159		Soil					✓		BIN J2H, A14
B-17B-1.5	5/31/16	1200		Soil					✓		
B-17A-0.4	5/31/16	1202		Soil					✓		
B-17A-1.5	5/31/16	1204		Soil					✓		
B-16B-0	5/31/16	1209		Soil					✓		
B-16B-1.5	5/31/16	1210		Soil					✓		
B-16A-0	5/31/16	1215		Soil					✓		
B-16A-1.5	5/31/16	1217		Soil					✓		

Relinquish by/date/time: Brett Bardsley 6/1/16 1459 hrs
Received by/date: 6/1/16 1454 hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report
Requested Report Date: ____
TURNAROUND TIME: ___24 hr. ___48 hr. ___5 day ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

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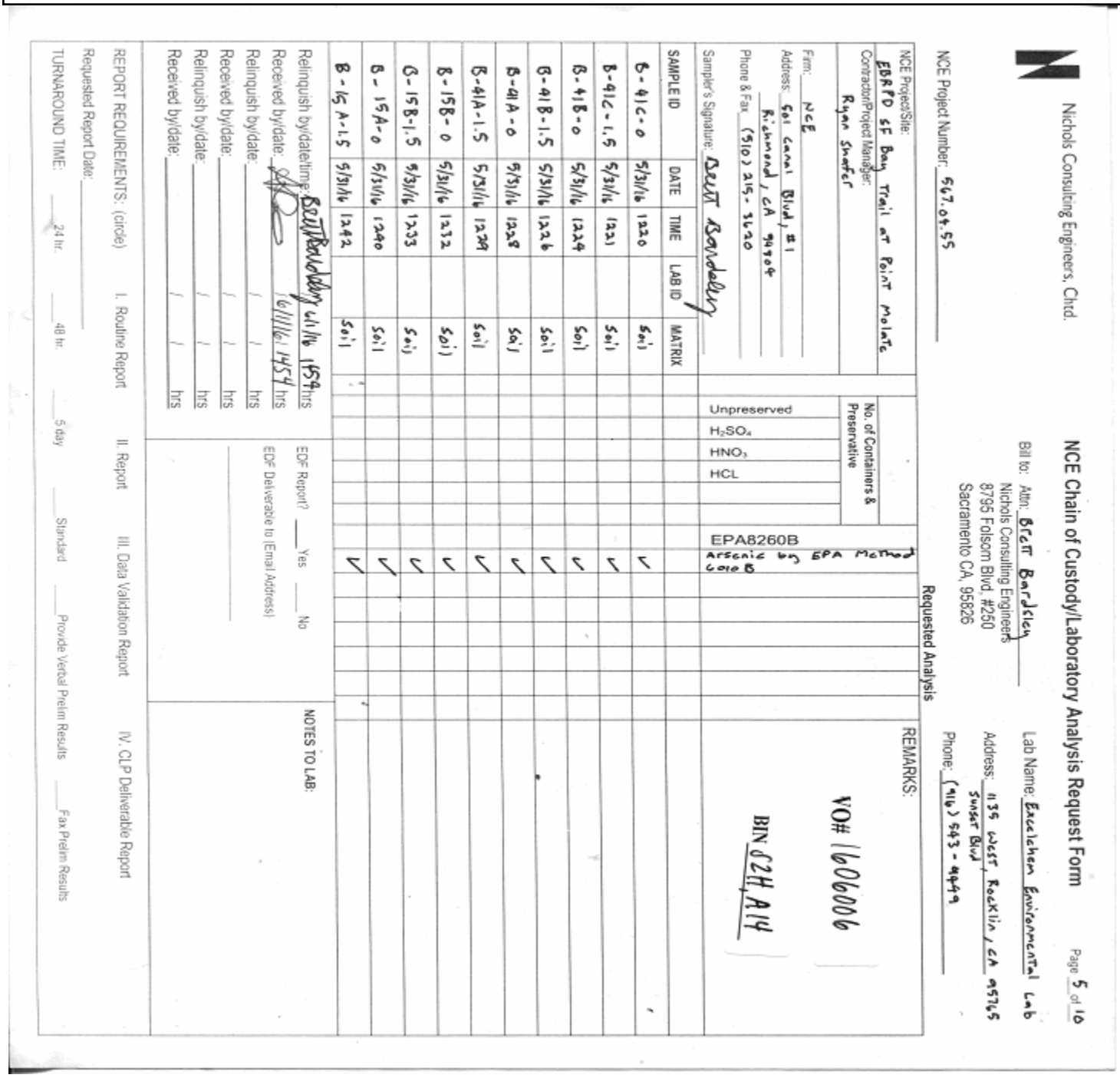
Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 5 of 10

Bill to: Attn: Brett Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd. #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 West Rocklin, CA 95765
Sunset Blvd
Phone: (916) 543 - 4949

NCE Project Number: 567.04.55

NCE Project/Site: EBRPD SF Bay Trail at Point Molate

Contractor/Project Manager: Ryan Shafer

Firm: NCE

Address: 501 Canal Blvd, #1
Richmond, CA 94804

Phone & Fax: (510) 215-3620

Sampler's Signature: Brett Bardsley

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic by EPA Method 6010B	REMARKS:
B-41C-0	5/31/16	1220		Soil					✓		VO# 1606006
B-41C-1.5	5/31/16	1221		Soil					✓		
B-41B-0	5/31/16	1224		Soil					✓		BIN 52H, A14
B-41B-1.5	5/31/16	1226		Soil					✓		
B-41A-0	5/31/16	1228		Soil					✓		
B-41A-1.5	5/31/16	1229		Soil					✓		
B-15B-0	5/31/16	1232		Soil					✓		
B-15B-1.5	5/31/16	1233		Soil					✓		
B-15A-0	5/31/16	1240		Soil					✓		
B-15A-1.5	5/31/16	1242		Soil					✓		

Relinquish by/date/time: Brett Bardsley 6/1/16 1454 hrs
Received by/date: 6/1/16 1454 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address):

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: 24 hr. 48 hr. 5 day Standard Provide Verbal Prelim Results Fax Prelim Results

Excelchem Environmental Lab.

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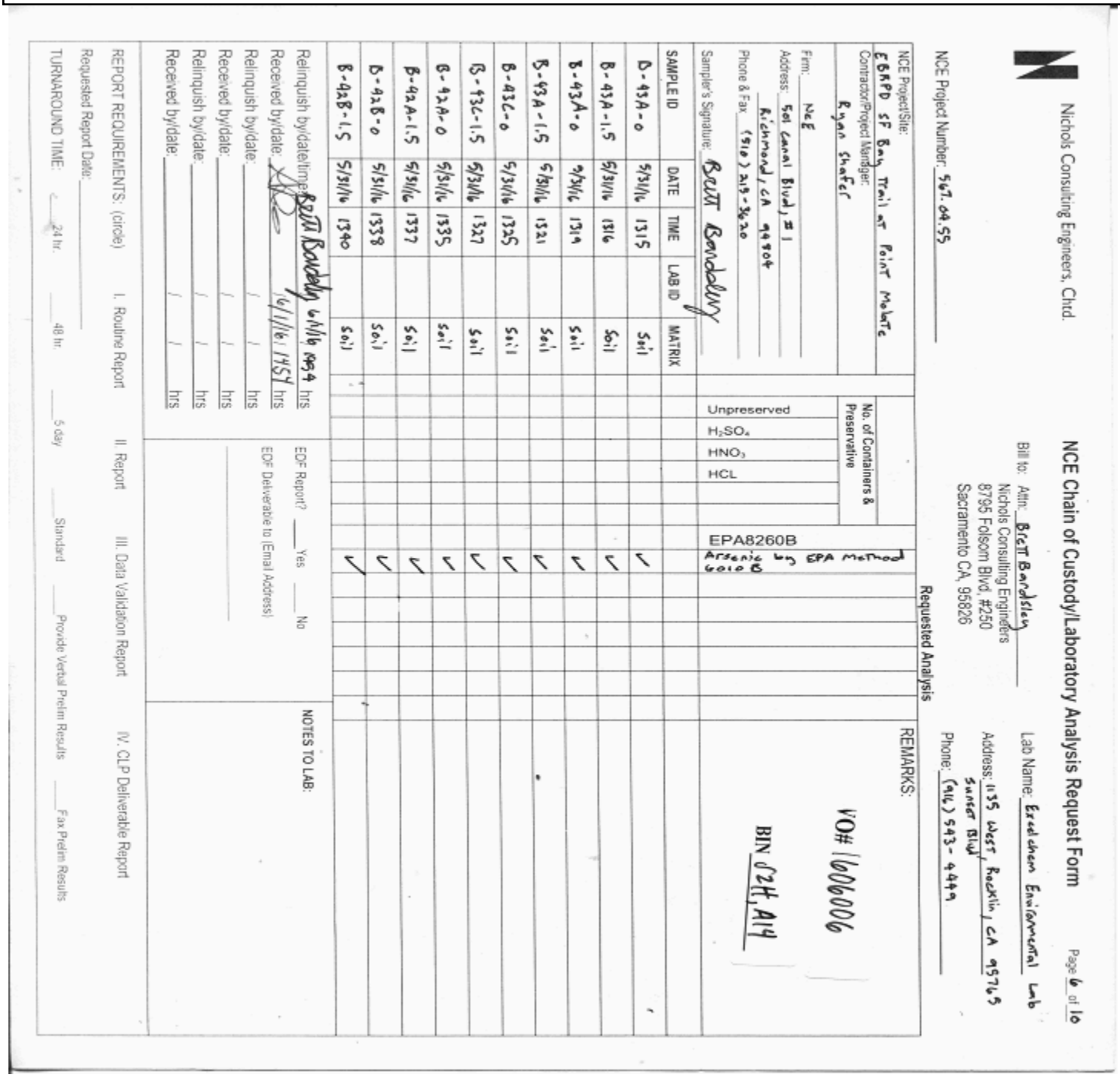
Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 6 of 10

Bill to: Attn: Brett Bandelow
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 West Rockin, CA 95765
Sunset Blvd
Phone: (916) 543-4999

NCE Project Number: 567.04.55

NCE Project/Site: EBRPD SF Bay Trail at Point Molate
Contractor/Project Manager: Ryan Shafer
Firm: NCE
Address: 501 Canal Blvd, #1
Richmond, CA 94804
Phone & Fax: (510) 215-3620
Sampler's Signature: Brett Bandelow

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic by EPA Method 6010B	REMARKS:
B-43A-0	5/31/16	1315		Soil					✓		VO# 1606006
B-43A-1.5	5/31/16	1316		Soil					✓		
B-43A-0	5/31/16	1319		Soil					✓		
B-43A-1.5	5/31/16	1321		Soil					✓		
B-43C-0	5/31/16	1325		Soil					✓		
B-43C-1.5	5/31/16	1327		Soil					✓		
B-42A-0	5/31/16	1335		Soil					✓		BIN #24, A14
B-42A-1.5	5/31/16	1337		Soil					✓		
B-42B-0	5/31/16	1338		Soil					✓		
B-42B-1.5	5/31/16	1340		Soil					✓		

Relinquish by/date/time: Brett Bandelow 6/1/16 0954 hrs
Received by/date: 6/1/16 1154 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: 24 hr. 48 hr. 5 day Standard Provide Verbal Prelim Results Fax Prelim Results

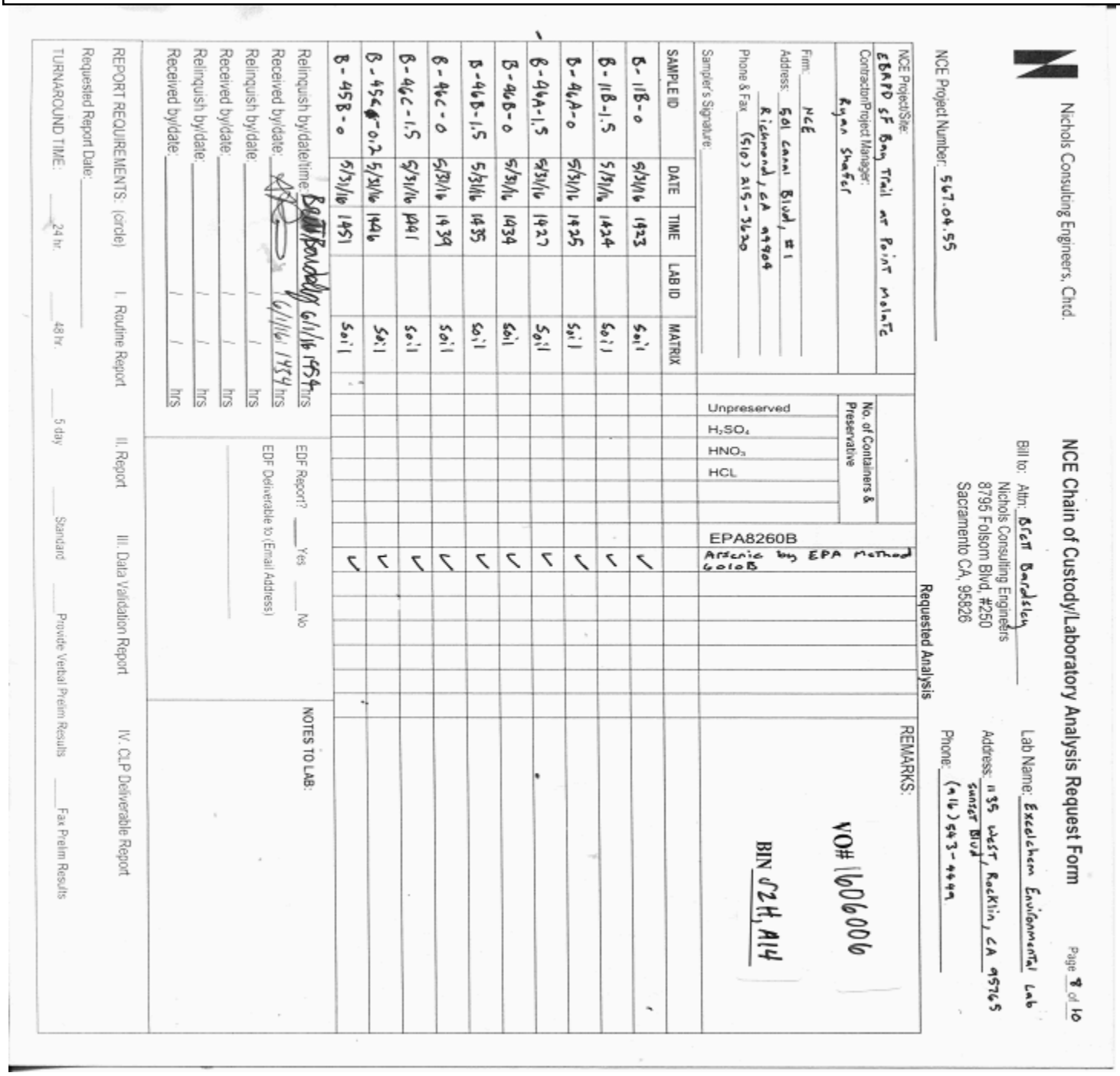
Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 8 of 10

Bill to: Attn: Brett Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1955 West Sunset Blvd Rocklin, CA 95765
Phone: (916) 543-4999

NCE Project Number: 567.04.55

NCE Project/Site: EBRPD SF Bay Trail at Point Molate
Contractor/Project Manager: Ryan Shafer
Firm: NCE
Address: 501 Canal Blvd, #1 Richmond, CA 94804
Phone & Fax: (510) 215-3620
Sampler's Signature:

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B Aromatics by EPA Method 6010B	REMARKS
B-118-0	5/31/16	1923		Soil					✓	VO# 1606006
B-118-1.5	5/31/16	1924		Soil					✓	
B-46A-0	5/31/16	1925		Soil					✓	
B-46A-1.5	5/31/16	1927		Soil					✓	
B-46B-0	5/31/16	1934		Soil					✓	
B-46B-1.5	5/31/16	1935		Soil					✓	
B-46C-0	5/31/16	1939		Soil					✓	
B-46C-1.5	5/31/16	1941		Soil					✓	
B-456-0.2	5/31/16	1946		Soil					✓	
B-458-0	5/31/16	1951		Soil					✓	BIN 12H, A14

Relinquish by/date/time: Brett Bardsley 6/1/16 1454 hrs
Received by/date: 6/1/16 1454 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report
Requested Report Date:
TURNAROUND TIME: 24 hr. 48 hr. 5 day Standard Provide Verbal Prelim Results Fax Prelim Results

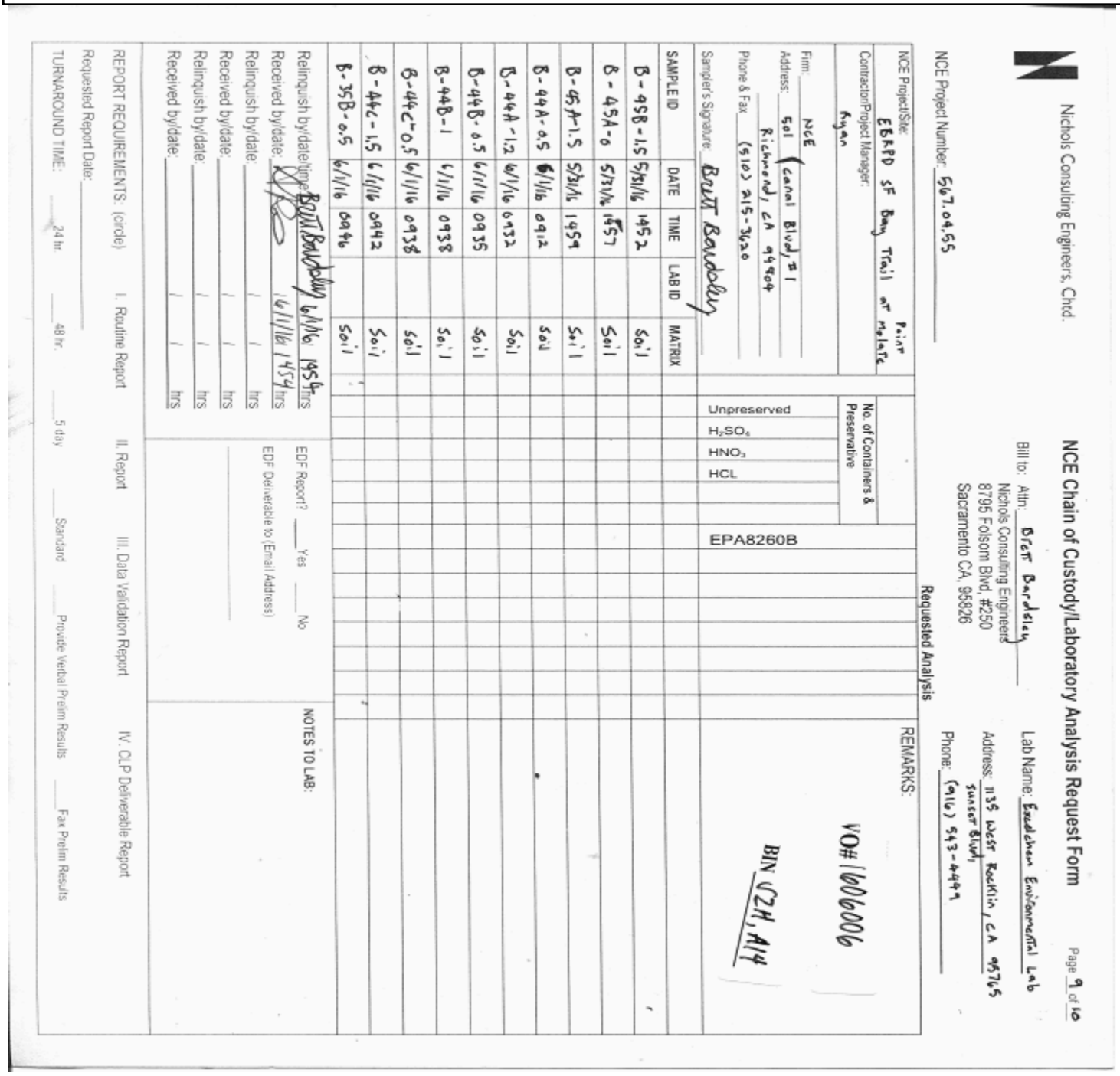
Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 9 of 10

Bill to: Attn: Brett Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 Tobias Rocklin, CA 95765
Sunset Blvd
Phone: (916) 543-4490

NCE Project Number: 567.04.55

NCE Project/Site: EBRPD SF Bay Trail at Point
Contractor/Project Manager: Ryan
Firm: NCE
Address: 501 Canal Blvd, #1
Richmond, CA 94804
Phone & Fax: (510) 215-3620
Sampler's Signature: Brett Bardsley

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	REMARKS
B-498-1.5	5/31/16	1452		Soil						
B-45A-0	5/31/16	1457		Soil						
B-45A-1.5	5/31/16	1459		Soil						
B-44A-0.5	6/1/16	0912		Soil						
B-44A-1.2	6/1/16	0932		Soil						
B-44B-0.5	6/1/16	0935		Soil						
B-44B-1	6/1/16	0938		Soil						
B-44C-0.5	6/1/16	0938		Soil						
B-44C-1.5	6/1/16	0942		Soil						
B-35B-0.5	6/1/16	0946		Soil						

VO# 1606006

BIN SZH, AIY

Relinquish by/date/time: Brett Bardsley 6/1/16 1954 hrs
Received by/date: 6/1/16 1454 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: ___24 hr. ___48 hr. ___5 day ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

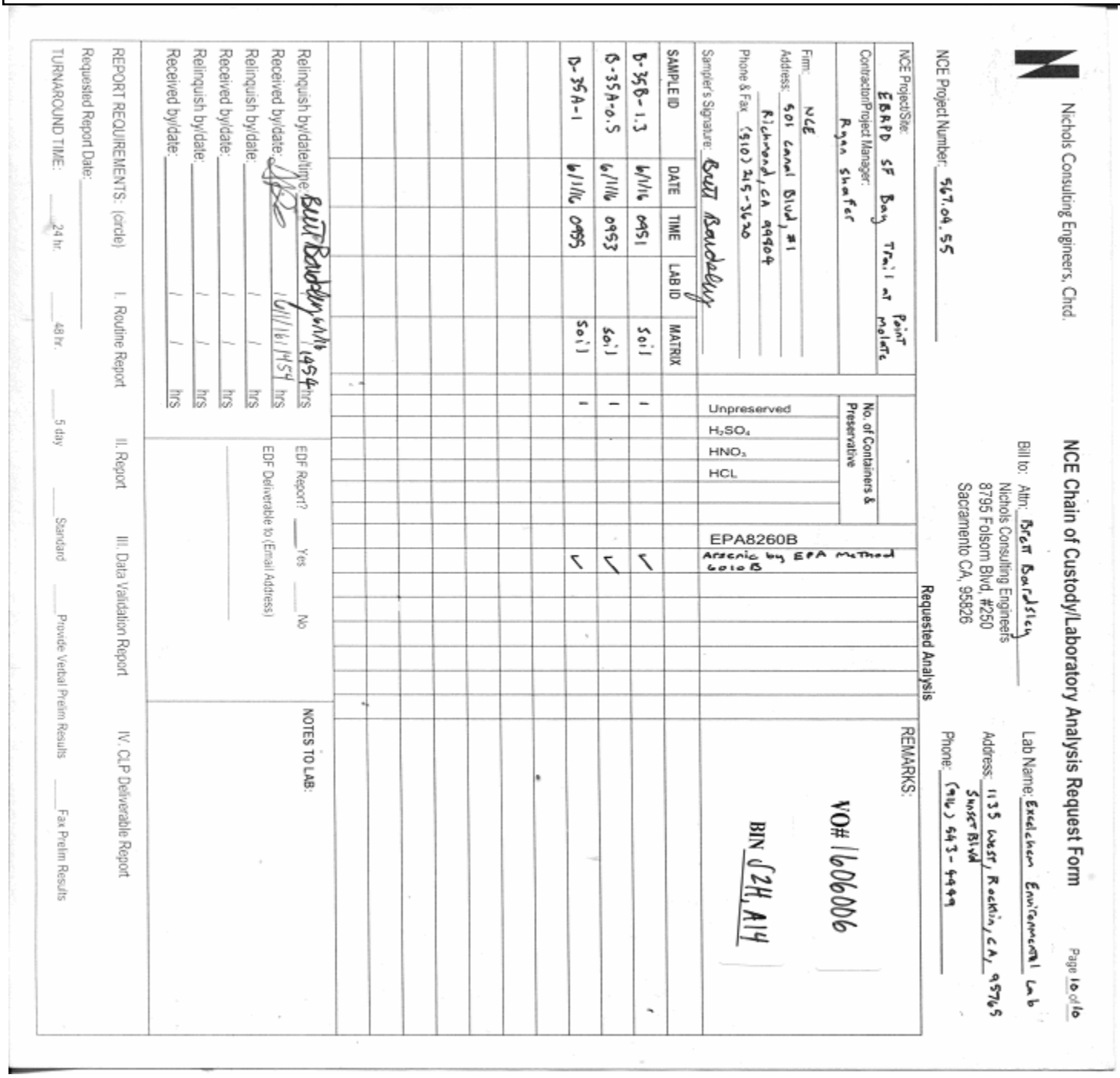
Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 1 of 1

Bill to: Attn: Brett Baardsley
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 West Rocklin, CA, 95765
Sunset Blvd
Phone: (916) 543-4999

NCE Project Number: 567.04.55

NCE Project/Site: EBRPD SF Bay Trail at Point Molate

Contractor/Project Manager: Ryan Shafer

Firm: NCE

Address: 501 Canal Blvd, #1
Richmond, CA 94804

Phone & Fax: (510) 245-3620

Sampler's Signature: Brett Baardsley

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA8260B	Arsenic by EPA Method 6010B
B-35B-1.3	6/1/16	0951		Soil	1				✓	
B-35A-0.5	6/1/16	0953		Soil	1				✓	✓
B-35A-1	6/1/16	0955		Soil	1				✓	✓

REMARKS:

VO# 1606006

BIN J2H, A14

Relinquish by/date/time: Brett Baardsley 6/1/16 1454 hrs
Received by/date: 6/1/16 1454 hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs
Relinquish by/date: ____ hrs
Received by/date: ____ hrs

EDF Report? ___ Yes ___ No

EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date: ____

TURNAROUND TIME: ___24 hr. ___48 hr. ___5 day ___Standard ___Provide Verbal Prelim Results ___Fax Prelim Results

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

Sample Integrity

WORK ORDER _1606006_

Date Received:__06/01/2016__

Section 1 – Sample Arrival Info.

Sample Transport: ONTRAC UPS USPS ***Walk-In*** EXCELCHEM Courier Fed-Ex Other:_____

Transported In: ***Ice Chest*** Box Hand

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other:_____

Has chilling process begun? Y N Samples Received: Chilled to Touch / Ambient / ***On Ice***

Temperature of Samples (°C): __19__ Ice Chest Temperature(s) (°C): _0__

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?		X		1/10 broken glass jar – B-35-B-0.5
Did all bottle labels agree with COC?	X			
Were correct containers used for the tests requested?	X			
Were correct preservations used for the tests requested?	X			
Was a sufficient amount of sample sent for tests indicated?	X			
Were bubbles present in VOA Vials?: **(Volatile Methods Only)**		X		

Section 3 – Summa/Flow regulator Info.

Used Summa#:	N/A
Unused Summa#:	
Cleaning Summa#:	
Regulator#:	
Was there any visual damage to summa canisters **or** flow regulators? **Explain.**	

Section 4 – COC Info.

	Completed Yes	No	Info From Container		Completed Yes	No	Comments
Was COC Received	X			Analysis Requested	X		
Date Sampled	X			Samples arrived within holding time	X		
Time Sampled	X			Any hold times less than 72 hrs		X	
Sample ID	X			Client Name	X		
Rush TAT		X		Address/Telephone #	X		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: Yes No *N/A* Notified by:

Explanations / Comments:

Samples Labeled by: ____*AR*____
Bin #s: _S2H, A14_
COC Scanned/Attached by: _AR_
Sample labels reviewed by: __AR____

Filled Out by:	Antoinette Ranit	**Date:**	06/01/16
		Time:	16:22

Excelchem Environmental Lab.

Laboratory Representative

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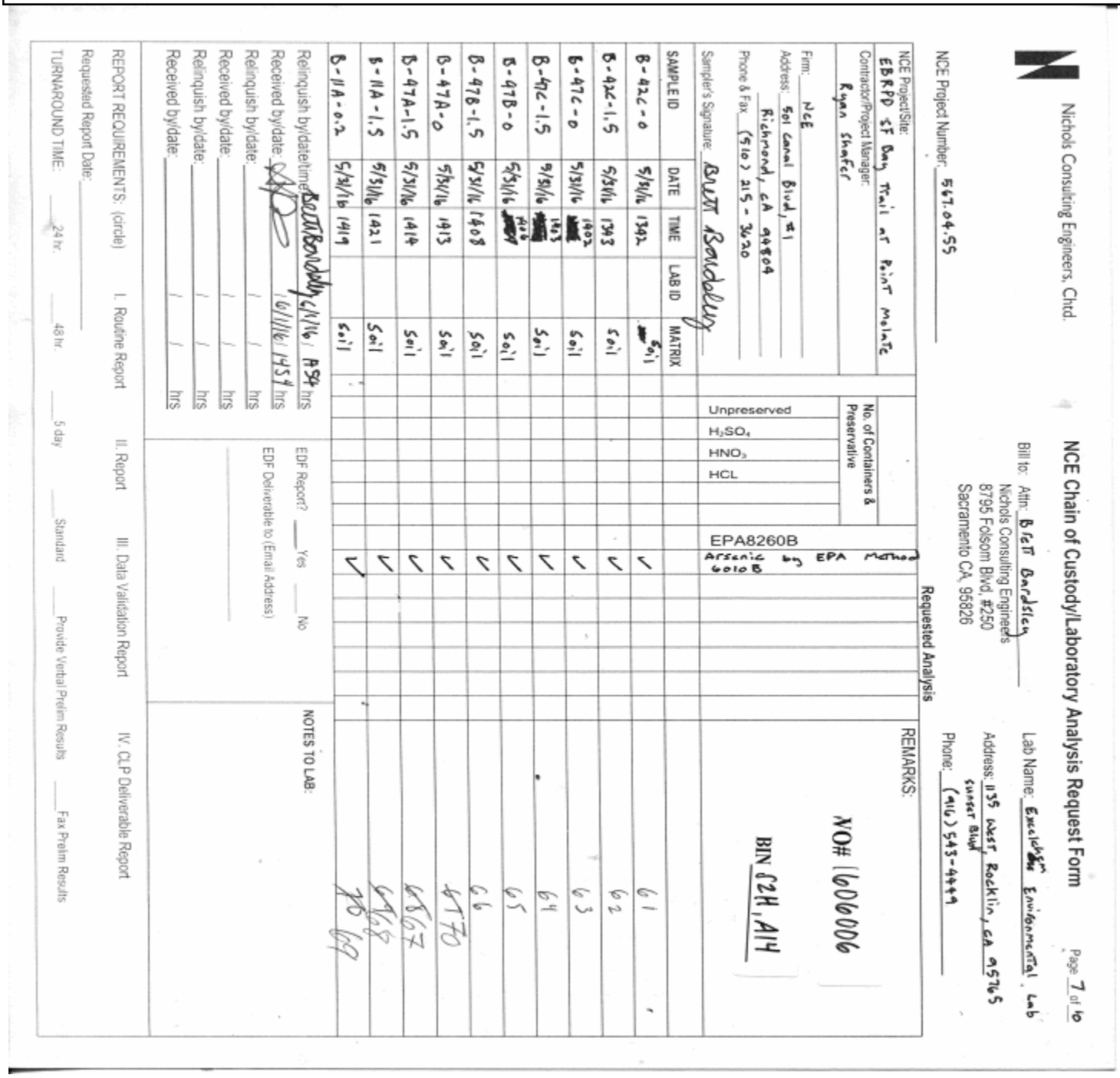
Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15



Nichols Consulting Engineers, Chtd.

NCE Chain of Custody/Laboratory Analysis Request Form

Page 7 of 10

Bill to: Attn: Brett Bardsley
Nichols Consulting Engineers
8795 Folsom Blvd, #250
Sacramento CA, 95826

Lab Name: Excelchem Environmental Lab
Address: 1135 West Rocklin, CA 95765
Sunset Blvd
Phone: (916) 543-4999

NCE Project Number: 567.04.55

NCE Project/Site: EBRPD SF Bay Trail at Point Molate

Contractor/Project Manager: Ryan Shafer

Firm: NCE

Address: 501 Canal Blvd, #1
Richmond, CA 94804

Phone & Fax: (510) 215-3620

Sampler's Signature: Brett Bardsley

Requested Analysis

SAMPLE ID	DATE	TIME	LAB ID	MATRIX	No. of Containers & Preservative: Unpreserved	H_2SO_4	HNO_3	HCL	EPA 8260B	EPA Method 6010B Arsenic	REMARKS:
B-42A-0	5/31/16	1342		Soil					✓		NO# 1606006
B-42A-1.5	5/31/16	1343		Soil					✓		
B-47A-0	5/31/16	1902		Soil					✓		BIN 02H, A14
B-47A-1.5	5/31/16	1903		Soil					✓		
B-47B-0	5/31/16	1908		Soil					✓		
B-47B-1.5	5/31/16	1908		Soil					✓		
B-47A-0	5/31/16	1913		Soil					✓		
B-47A-1.5	5/31/16	1914		Soil					✓		
B-11A-1.5	5/31/16	1921		Soil					✓		
B-11A-0.2	5/31/16	1919		Soil					✓		

Relinquish by/date/time: Brett Bardsley 6/1/16 0954 hrs
Received by/date: 6/1/16 1454 hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs
Relinquish by/date: / / hrs
Received by/date: / / hrs

EDF Report? ___ Yes ___ No
EDF Deliverable to (Email Address)

NOTES TO LAB:

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date:

TURNAROUND TIME: 24 hr. 48 hr. 5 day Standard Provide Verbal Prelim Results Fax Prelim Results

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Nichols Consulting Engineers	Project:	EBRPD SF Bay Trail	
8795 Folsom Blvd., Suite 250	Project Number:	[none]	Date Reported:
Sacramento, CA 95826	Project Manager:	Ryan Shafer	06/28/16 11:15

Front Desk

From: Brett Bardsley <BBardsley@ncenet.com>
Sent: Monday, June 06, 2016 5:54 PM
To: Front Desk
Cc: John Somers
Subject: Point Molate - PAHs

Hi Mindy,

We would like to have the following samples tested for PAHs by EPA Method 8270SIM:

B-37C-0 (5/31/16 at 1016 hours);
B-42B-0 (5/31/16 at 1338 hours);
B-45B-0 (5/31/16 at 1434 hours);
B-47B-0 (5/31/16 at 1406 hours); and
B-43B-0 (5/31/16 at 1319).

I just noticed that I identified that sample incorrectly on the chain of custody.

Please let me know if you have any questions or comments.

Regards,

NCE
Brett Bardsley, P.G.
Senior Geologist
p (916) 388-5655
f (916) 388-5676 **e** bbardsley@ncenet.com
NCE
8795 Folsom Blvd., Suite 250, Sacramento, CA 95826
www.ncenet.com
Collaboration. Commitment. Confidence.SM

1

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

ATTACHMENT D

ASBESTOS LABORATORY ANALYTICAL REPORT

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Forensic Analytical Consulting Svcs
David Justin Brinkerhoff
7625 Sunrise Blvd.
Suite 104
Citrus Heights, CA 95610

Client ID: SAC02
Report Number: B224994
Date Received: 07/21/16
Date Analyzed: 07/22/16
Date Printed: 07/22/16
First Reported: 07/22/16

Job ID/Site: PJ3027; FACS Sacramento Internal 7625 Sunrise Boulevard, Suite 104 Citrus Heights, CA 95610
Date(s) Collected: 07/20/2016

FALI Job ID: SAC02
Total Samples Submitted: 3
Total Samples Analyzed: 3

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
A-01	11787316						
Layer: Grey Roof Shingle			**ND**				
Total Composite Values of Fibrous Components: Fibrous Glass (30 %)		**Asbestos (ND)**					
A-02	11787317						
Layer: Grey Roof Shingle			**ND**				
Layer: Black Tar			**ND**				
Total Composite Values of Fibrous Components: Fibrous Glass (30 %)		**Asbestos (ND)**					
A-03	11787318						
Layer: Grey Roof Shingle			**ND**				
Total Composite Values of Fibrous Components: Fibrous Glass (30 %)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

FACS → SAC

SAMPLING DATA FORM & CHAIN OF CUSTODY

Page 1 of ___

Sacramento International, 7625 Sunrise Blvd, Ste 707, Citrus Heights, CA 95610

CLIENT: ~~HAY01 FACS San Francisco~~ ~~Kaiser Capital Proj Facilities Construction~~ (CM)

Sampled by: Chris Morgan

Sample Date: ~~7/19/16~~ 7/20/16

Site/Bldg.: Point Molate, Richmond, CA

Turnaround Time: RUSH (X 24 hr) 48 hr Extended (____ days)

Analysis: (X PLM Standard) _____ PLM with Point Count (____400 pt. _____ 1,000 pt.)

FACS Proj. No.: PJ 3027

Special Instructions E-mail results to cmorgan@forensicanalytical.com and dbrinkerhoff@forensicanalytical.com

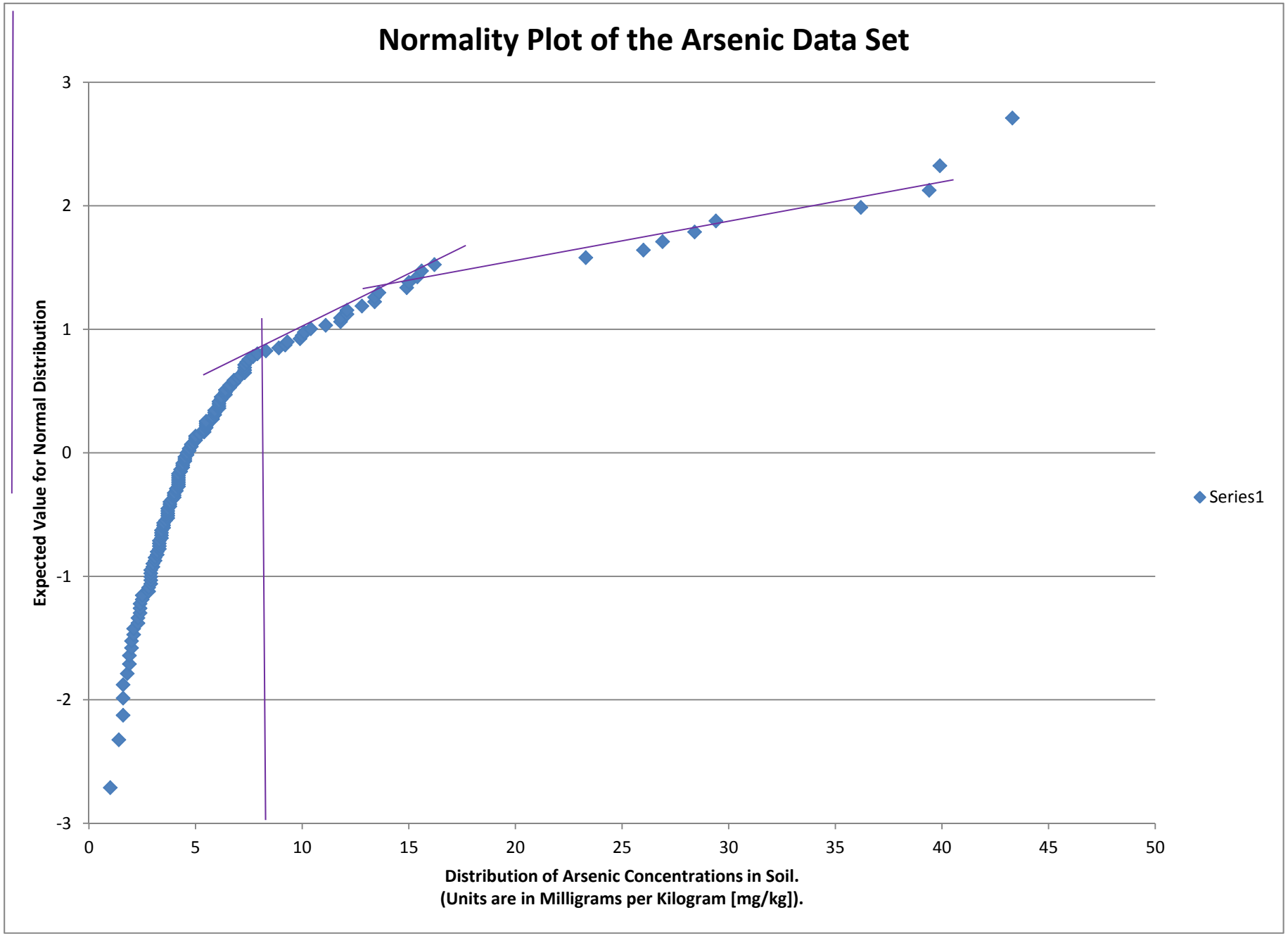
HA#	Homogeneous Material Description (incl. color, texture, phase of construction)	Quant. in SF (LF for small pipe only)	Friable/ Cat. I/ Cat. II	Condition (good, fair, poor)	Sample Number	Sample Location	Lab Result (when rcvd)
1	Black roofing shingles				A-01	Pt Molate, Richmond - On ground along water tank - Coordinates:	
1	↓				A-02	37°56'51" N	
1	↓				A-03	122°25'19" W	
						Observed ≤100 SF of scattered roofing	
						shingles	

DW = Drywall JC = Joint Compound WT = Wall Texture VFT = Vinyl Floor Tile VSF = Vinyl Sheet Flooring BB = Baseboard BBM = Baseboard Mastic CM = Carpet Mastic ACT = Acoustic Ceiling Tile ACS = Sprayed-on Acoustical Ceiling Material FP = Fireproofing PI = Pipe Insulation PFI = Pipe fitting Insulation WP = Plaster CP = Ceiling Plaster ES = Exterior Stucco

Relinquished by: Date & Time: Chris Morgan 7/21/16	Relinquished by: Date & Time: d/o	Relinquished by: Date & Time:
Received by: Date & Time	Received by: Date & Time: RECEIVED JUL 21 2016	Relinquished by: Date & Time:

ATTACHMENT E

NORMALITY PLOT OF THE ARSENIC DATA SET


Normality Plot of the Arsenic Data Set
Expected Value for Normal Distribution
3
2
1
0
-1
-2
-3
0
5
10
15
20
25
30
35
40
45
50
Distribution of Arsenic Concentrations in Soil.
(Units are in Milligrams per Kilogram [mg/kg]).
Series1