



*Silicon Valley
Rapid Transit Program*

12 August 2016

Mr. Max Shahbazian (via e-mail and upload to GeoTracker)
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
ATTN: Toxics Cleanup Division

RE: Notice of Potential Exposure to Class 1 Soils
Berryessa Station Site
1600 Berryessa Rd, San Jose, CA 95133
BART Extension to Milpitas and San Jose
Silicon Valley Berryessa Extension Project

Dear Mr Shahbazian,

The Santa Clara Valley Transportation Authority (VTA) provides this letter and attached information in response to your request for a formal notification regarding the potential exposure to Class I soils in a limited area of the Berryessa Station Campus in San José, which is part of VTA's Silicon Valley BART Berryessa Extension Project (SVBX Project). This letter summarizes the chain of events that occurred and explains the actions VTA has taken and continues to take to address the conditions onsite and the potential risks of exposure.

In early June 2016, VTA determined that employees of Graniterock Company (GRC) and its subcontractors may have been inadvertently exposed to soils, within a very limited area of the Berryessa campus site on the SVBX Project, that contain levels of arsenic and lead contamination. This potential exposure occurred during excavation work between November 10 and November 18, 2015 and in mid-May 2016.

On June 8, 2016, VTA verbally notified GRC of the potential exposure and directed GRC to cease immediately its operations in the affected area. An existing stockpile thought to contain excavated contaminated material was immediately covered, and the open excavation and potentially contaminated soils were cordoned off to prevent worker ingress. Work in this specific area was stopped while soil sampling and testing of the suspected soils was conducted to detect presence and classification of any hazardous contaminants.

Test results reveal that the current subsurface conditions have non-hazardous levels of contaminants and therefore considered acceptable to work in the area with standard levels of construction personal protection equipment (PPE). Those test results are enclosed. Work is progressing at the site with standard PPE measures in place.

The primary risk at issue is the potential inhalation of dust containing arsenic or lead that exceed accepted health risk criteria. The test results show that with normal construction dust control measures, it is unlikely that workers were exposed to levels of arsenic- or lead-containing dust that exceeded permissible exposure limits set by Cal/OSHA. However, the test results do not address the health and safety issues associated with the absence of the correct level of protection due to inhalation, ingestion, or dermal exposure as a result of not having proper hand washing facilities on site, clothing protection, and dust control measures.

Moreover, even though the risk of exposure through inhalation is very low, the risk is still present and is being further addressed with potential worker health risks. VTA has requested assistance and confirmation from Graniterock to: 1) provide a list of workers who conducted excavation and handling of soils for further testing; and 2) confirm that dust control methods were used during that period to prevent risk of inhalation exposure.

As detailed above, since learning of the potential exposure, VTA has acted diligently and reasonably to take ownership of the situation and to protect the health and safety of everyone affected. VTA reaffirms its commitment to its project-specific Health & Safety Plan and to delivering the SVBX in accordance with all applicable environmental laws and regulations.

Should you have any questions regarding this submittal, please call me at (408) 934-2619.

On behalf of Santa Clara Valley Transportation Authority,



Wesley M. Toy, P.E.

Sr. Environmental Engineer

Enclosure

Cc: Mr. John Wolfenden, SR WRC Engineer, via e-mail



HALEY & ALDRICH, INC.
1956 Webster Street
Suite 300
Oakland, CA 94612
510.879.4544

MEMORANDUM

5 July 2016
File No. 39684-004

TO: Santa Clara Valley Transportation Authority
Mr. Wes Toy

CC: Santa Clara Valley Transportation Authority
Mr. Dan Pornel

FROM: Haley & Aldrich, Inc.
Susan Gallardo, PE #C 038154
Anita Broughton, CIH #5682 CP

SUBJECT: Soil Characterization
VTA BART Extension Project, C742 Berryessa Station Campus
San Jose, California

At your request, Haley & Aldrich, Inc., (Haley & Aldrich) prepared this memorandum to document the soil characterization activities that were conducted on behalf of the Santa Clara Valley Transportation Authority (VTA) during the VTA BART Extension Project for the C742 Berryessa Station Campus Area in San Jose. The purpose of this task was to evaluate potential construction worker exposure due to inhalation of arsenic- and lead-containing fugitive dust from soil located beneath the aerial guideway during lime treatment involving the excavation of soils, blending with lime, and backfilling activities. The evaluation was conducted by comparing analytical results to California Division of Occupational Safety and Health (Cal/OSHA) permissible exposure limits (PELs) for arsenic and lead. The field activities were performed in accordance with Tasks 1 and 4 described in the 16 June 2016 "Change Order for Soil Characterization, VTA BART Extension Project, C742 Berryessa Station Campus, San Jose, California" (Change Order).

Background and Purpose

The initial site investigation by AECOM performed prior to construction in the subject area between Stations 526+60 to Station 533+00 indicated that arsenic concentrations in the ballast and soil would likely be classified as hazardous waste for disposal purposes.¹ As reported by VTA, "subsequent work at this location by the C700 Contractor, SSH, was performed with the necessary Health and Safety Plan in force for the levels of contaminants identified in the AECOM report and subsequent investigations to

¹ AECOM Technical Services, Inc., "Remedial Action Plan for Silicon Valley Berryessa Extension Project, Fremont, Milpitas, and San Jose, California," February 2012.

confirm the presence of arsenic at hazardous levels. The C742 Berryessa Station Campus Contract was not made aware of these hazards and work was performed without an appropriate Health and Safety Plan for the Chemical of Concern, arsenic". This analysis herein is intended to evaluate the potential construction worker exposure due to inhalation of arsenic- and lead-containing fugitive dust.

Maximum concentrations of arsenic previously detected in soil at 1-foot depth between Stations 526+60 and 531+70 are listed below; these data are documented in the 2013 investigation report by **envirosurvey, inc.**². As reported by VTA, soil in this area under the guideway were excavated to 18 inches below grade and stockpiled in the parking area to the east of the aerial guideway. The soil was lime treated and used as backfill in the areas where soil was excavated. It is our understanding from VTA that these data are representative of the soil between these stations, and that this is the soil that was removed, treated, and replaced into the same area. It is further our understanding that the results of the 2013 sampling including reasonable maximum arsenic and lead concentrations within the area work area, can be used to assess maximum potential exposure concentrations to which the subject construction workers may have been exposed. Haley & Aldrich recently conducted a sampling program in the lime treated soils to determine the current levels of arsenic in the backfill materials.

2013 Maximum Arsenic Concentrations – Stations 526+60 to 531+70

Station	Depth	Arsenic (mg/kg)
526+60	1	283.9
528+10	1	457.9
529+50	1	572.2
530+20	1	655.6
531+70	1	300.0

mg/kg = milligrams per kilogram

The maximum lead concentration detected in the soil samples that were collected during the 2013 sampling effort was 150.7 mg/kg.

2016 Soil Sampling Activities

PRELIMINARY FIELD ACTIVITIES

Field activities were coordinated with VTA. A Site-specific Health and Safety Plan was prepared with necessary health and safety protocols for field personnel conducting the field activities. Underground Service Alert of Northern California was contacted to locate underground utilities within the public right-of-way areas (Ticket # W616801316-00W). The work areas were also cleared for underground utilities

² **envirosurvey,inc.**, 2013, Environmental Site Investigations, Berryessa Station (ML Line), Station 5050 to 5690, VTA-BART Berryessa Extension Project – C700, 3 May.

by a private underground utility locating contractor on 18 June 2016. VTA also provided utility maps to Haley & Aldrich in advance of field activities.

DISCRETE SOIL SAMPLING

Haley & Aldrich contracted with Environmental Control Associates (ECA) of Santa Cruz, California (VTA SBE #10-0605 and California licensed C-57 drilling contractor #695970), to advance 29 soil borings on 20 June 2016; the locations of these borings is shown on Sheets L-223 and L-225, which are included in Attachment 1. Soil borings were advanced using a direct push rig to depths ranging from 6 inches below ground surface (bgs) to 30 inches bgs as specified in the Change Order.

A daily health and safety tailgate meeting was held with Haley & Aldrich and ECA on-site personnel. Prior to mobilizing to the boring locations, a site walk was performed on 18 June 2016 to identify the soil boring locations and review the means of accessing each soil boring location.

As shown on Sheets L-223 and L-225, the soil boring locations are between Stations 526+67 and 530+80. Between these stations, there are two soil conditions:

- 1) undisturbed areas, where discrete soil samples were collected at approximate depths of 6 inches, 18 inches bgs, and 30 inches bgs; and
- 2) disturbed/lime-treated areas, where discrete soil samples were collected at approximate depths of 6 inches bgs and 18 inches bgs -- no deeper samples were collected due to the proximity to the duct bank.

The soil samples at each boring location were collected continuously from each boring. Excess material generated during drilling activities was placed back in the hole and remaining material was spread on the ground surface near the boring.

Each discrete soil sample was placed on ice in a cooler and transported under standard chain of custody to Torrent Laboratories in Milpitas, California, and analyzed for arsenic and lead by United States Environmental Protection Agency (EPA) Method 6010B.

The analytical results are presented on Table 1 and in Attachment 2.

SUMMARY OF ANALYTICAL RESULTS

Haley & Aldrich performed a quality assurance/quality control (QA/QC) review of all laboratory data. Data were evaluated in accordance with guidance from the USEPA National Functional Guidelines (EPA 540-R-013-001). The QA/QC results are included as Attachment 3 and describe those data that are qualified due to QA/QC issues. Qualified data are included in Table 1. One result, the arsenic concentration detected in sample SB-21-C-18 (2.3 mg/kg), was rejected due to the concentration of arsenic detected in the associated laboratory method blank sample. With this one exception, the results of the QA/QC review indicate the analytical results are of sufficient quality to support the conclusions presented, and the results are considered to be valid and usable.

The analytical results indicate the following:

- Arsenic was detected at concentrations ranging between 1.8 mg/kg and 160 mg/kg; and
- Lead was detected at concentrations ranging between 1.3 mg/kg and 89 mg/kg.

Data Evaluation and Findings

The purpose of the sampling program was to evaluate potential construction worker exposure due to inhalation of arsenic- and lead-containing fugitive dust generated during associated excavation and backfill activities, by comparing these results to Cal/OSHA PELs for arsenic and lead. As indicated above, analytical results for discrete samples of in-place soil, prior to its excavation, lime treatment, and backfill, contained higher concentrations of arsenic and lead than those detected during the current sampling program. These results likely reflect that the lime treatment and blending of the soil occurred during soil movement, and it is likely that workers were not exposed to the maximum concentrations of arsenic and lead during the duration of the soil movement activities. However, for this analysis, it was conservatively assumed that a worker would be exposed to the maximum concentration of arsenic or lead detected in the in-place soil throughout an 8-hour work day.

The analysis was conducted by calculating a dust action level for each metal. The dust action level is a concentration of airborne dust that would require mitigation to reduce the possibility of an exposure. As described below, it is assumed in this analysis that the contractor excavating, moving and placing soil engaged standard dust control and dust monitoring procedures that would be required at any job site, and would, at a minimum, adhere to Cal/OSHA requirements, including permissible exposure limits established by Cal/OSHA and codified in the California Code of Regulations regarding dust exposure. The generation of dust and the maximum allowable dust limits apply regardless of the possible presence of constituents in soil that could result in a specific chemical exposure.^{3, 4} Our analysis is specific to dust generation, and does not evaluate other potential Cal/OSHA, Air Quality Management District, or VTA-specific requirements that may have been relevant to the soil excavation and placement activities.

Using the maximum concentration of arsenic (655.6 mg/kg) and lead (150.70 mg/kg) detected during the 2013 investigation, the dust required to trigger an exposure in excess of the respective PEL for each metal, referred to as a dust action level, was calculated using the following equation:

$$\text{dust action level (mg/m}^3\text{)} = \frac{\text{PEL (milligrams per cubic meter [mg/m}^3\text{])} \times 1,000,000 \text{ (mg/kg)}}{\text{maximum soil concentration (mg/kg)}}$$

The PELs and calculated dust action levels for arsenic and lead, based on the PELs for arsenic and lead, respectively, are presented on Table 2.

³ California Code of Regulations, Title 8, Section 5155 – Airborne Contaminants. Note that the PELs are considered to present “concentration limits for airborne contaminants to which nearly all workers may be exposed daily during a 40-hour workweek for a working lifetime without adverse effect.”

⁴ Table AC-1, which contains the PELs can be found on line at: <https://www.dir.ca.gov/title8/ac1.pdf>

These dust action levels were compared to the Cal/OSHA allowable 8-hour time-weighted average exposure for respirable and total dust. The PELs for respirable dust and total dust are 5 mg/m³ and 10 mg/m³, respectively. The calculated dust action levels are higher than the Cal/OSHA PELs for dust. Given the maximum concentration of arsenic and lead detected in 2013 soil samples, exposure to these metals at concentrations greater than their respective PEL would have occurred only if dust was generated in excess of the Cal/OSHA PELs for dust (that is, only if dust was generated in excess of 15 mg/m³ for an exposure to arsenic or 332mg/m³ for an exposure to lead). Under the assumption that the contractor who excavated, moved, and placed the soil utilized standard dust control and dust monitoring procedures and did not exceed the PELs for respirable and total dust, it is unlikely that a construction worker exposure in excess of the arsenic and lead PELs occurred.

Another way to evaluate the data is to instead consider the maximum concentration in soil that would trigger a potential exposure, again assuming that standard dust control and monitoring procedures are employed such that Cal/OSHA PELs are not exceeded.

$$\begin{array}{l} \text{Maximum soil concentration} \\ \text{(mg/kg)} \end{array} = \frac{\text{PEL (mg/m}^3\text{)}}{\text{dust action level (mg/m}^3\text{)}}$$

The maximum concentrations of arsenic and lead in soil that could potentially trigger an exposure at the Cal/OSHA limit of 10 mg/m³ for total dust are 1,000 mg/kg and 5,000 mg/kg, respectively. None of the detections of either arsenic or lead in soil are at or exceed these concentrations.

Recommendations

Regardless of the above analysis, it is required that contractors working in the area follow all appropriate Cal/OSHA exposure assessment requirements, and develop and implement a health and safety plan that is consistent with Cal/OSHA regulations for worker protection and identifies appropriate personal protective equipment, decontamination measures, and a dust monitoring program while handling soil at the construction site. Other Cal/OSHA, and potential Air Quality Management District and VTA-specific requirements regarding dust generation may apply; these potential requirements were not included in this evaluation.

Limitations

This report was prepared by Haley & Aldrich under the professional direction and review of the registered professional(s) listed. The work described herein was conducted in accordance with generally accepted professional engineering and geologic practice. No other warranty exists, either expressed or implied.

In addition to data collected by and observations made by Haley & Aldrich personnel, this report incorporates Site conditions observed and described by other as reported in records available to Haley & Aldrich as of the date of report preparation. Haley & Aldrich relied, in part, on such data collected by others in the development of interpretations about environmental conditions at the Site. The accuracy,

precision, or representative nature of data originally generated by others could not be independently verified by Haley & Aldrich, and would be beyond the scope of this project.

Closing

Please feel free to contact Ms. Anita Broughton at (619) 285-7104 (abroughton@haleyaldrich.com) or Susan Gallardo at (510) 879-4552 (sgallardo@haleyaldrich.com) if you have any questions.

Sincerely yours,
HALEY & ALDRICH, INC.



Susan Gallardo, PE #C 038154
Principal Consultant



Anita Broughton, CIH #5682 CP
Chief Scientist

Attachments:

Table 1 – Soil Analytical Results

Table 2 – Summary of Screening Levels for Dust in Work Zone Air

Attachment 1 – Soil Boring Locations

Attachment 2 – Torrent Laboratory Analytical Reports – 1606133, 1606134, 1606135, 1606036

Attachment 3 – Data Usability Summary Reports

Attachment 4 - Anita Broughton's American Board of Industrial Hygiene Certificate

TABLES

TABLE 1**SOIL ANALYTICAL RESULTS**

VTA BART EXTENSION PROJECT, C742 BERRYESSA STATION CAMPUS AREA/ROADWAY

SAN JOSE, CALIFORNIA

Location ID	Sample ID	Depth (ft bgs)	Sample Date	Approximate VTA Station	Arsenic (mg/kg)	Arsenic TCLP (mg/L)	Lead (mg/kg)
SB-01	SB-01-W-6	0.5	6/20/2016	530+13	6.6	--	8.1
SB-01	SB-01-W-18	1.5	6/20/2016	530+13	15	--	13
SB-02	SB-02-W-6	0.5	6/20/2016	530+15	6.6	--	10
SB-02	SB-02-W-18	1.5	6/20/2016	530+15	23	--	8.0
SB-03	SB-03-E-6	0.5	6/20/2016	530+80	7.3	--	8.6
SB-03	SB-03-E-18	1.5	6/20/2016	530+80	160	ND (<0.10)	16
SB-04	SB-04-W-6	0.5	6/20/2016	530+80	7.7	--	9.0
SB-04	SB-04-W-18	1.5	6/20/2016	530+80	ND (<1.7)	--	ND (<1.0)
SB-05	SB-05-W-6	0.5	6/20/2016	529+70	7.1	--	12
SB-05	SB-05-W-18	1.5	6/20/2016	529+70	22	--	15
SB-06	SB-06-W-6	0.5	6/20/2016	529+20	6.8	--	8.6
SB-06	SB-06-W-18	1.5	6/20/2016	529+20	100	ND (<0.10)	89
SB-07	SB-07-W-6	0.5	6/20/2016	529+00	15	--	9.0
SB-07	SB-07-W-18	1.5	6/20/2016	529+00	8.3	--	3.0
SB-07	SB-07-W-30	2.5	6/20/2016	529+00	11	--	24
SB-08	SB-08-W-6	0.5	6/20/2016	528+75	1.8	--	ND (<1.0)
SB-08	SB-08-W-18	1.5	6/20/2016	528+75	19	--	7.5
SB-08	SB-08-W-30	2.5	6/20/2016	528+75	11	--	12
SB-09	SB-09-C-6	0.5	6/20/2016	528+75	6.5	--	8.3
SB-09	SB-09-C-18	1.5	6/20/2016	528+75	15	--	7.5
SB-10	SB-10-W-6	0.5	6/20/2016	528+50	8.3 J+	--	8.7
SB-10	SB-10-W-18	1.5	6/20/2016	528+50	11 J+	--	12
SB-10	SB-10-W-30	2.5	6/20/2016	528+50	7.7 J+	--	11
SB-11	SB-11-W-6	0.5	6/20/2016	528+25	16 J+	--	11
SB-11	SB-11-W-18	1.5	6/20/2016	528+25	7.7 J+	--	10
SB-11	SB-11-W-30	2.5	6/20/2016	528+25	17	--	14
SB-12	SB-12-C-6	0.5	6/20/2016	528+25	3.5 J+	--	6.2
SB-12	SB-12-C-18	1.5	6/20/2016	528+25	62	--	23
SB-13	SB-13-E-6	0.5	6/20/2016	528+25	16 J+	--	11
SB-13	SB-13-E-18	1.5	6/20/2016	528+25	16 J+	--	10
SB-13	SB-13-E-30	2.5	6/20/2016	528+25	28	--	16
SB-14	SB-14-E-6	0.5	6/20/2016	528+50	14 J+	--	11
SB-14	SB-14-E-18	1.5	6/20/2016	528+50	15 J+	--	11
SB-14	SB-14-E-30	2.5	6/20/2016	528+50	8.1 J+	--	18
SB-15	SB-15-E-6	0.5	6/20/2016	528+75	13 J+	--	11
SB-15	SB-15-E-18	1.5	6/20/2016	528+75	8.6 J+	--	11
SB-15	SB-15-E-30	2.5	6/20/2016	528+75	4.8 J+	--	17

TABLE 1**SOIL ANALYTICAL RESULTS**

VTA BART EXTENSION PROJECT, C742 BERRYESSA STATION CAMPUS AREA/ROADWAY

SAN JOSE, CALIFORNIA

Location ID	Sample ID	Depth (ft bgs)	Sample Date	Approximate VTA Station	Arsenic (mg/kg)	Arsenic TCLP (mg/L)	Lead (mg/kg)
SB-16	SB-16-E-6	0.5	6/20/2016	528+90	10 J+	--	12
SB-16	SB-16-E-18	1.5	6/20/2016	528+90	6.2 J+	--	11
SB-16	SB-16-E-30	2.5	6/20/2016	528+90	7.0 J+	--	8.0
SB-17	SB-17-W-6	0.5	6/20/2016	528+00	10	--	8.9
SB-17	SB-17-W-18	1.5	6/20/2016	528+00	7.4	--	10
SB-17	SB-17-W-30	2.5	6/20/2016	528+00	18	--	12
SB-18	SB-18-W-6	0.5	6/20/2016	527+75	31	--	14
SB-18	SB-18-W-18	1.5	6/20/2016	527+75	13	--	11
SB-18	SB-18-W-30	2.5	6/20/2016	527+75	5.6 J+	--	12
SB-19	SB-19-W-6	0.5	6/20/2016	527+50	17	--	13
SB-19	SB-19-W-18	1.5	6/20/2016	527+50	17	--	11
SB-19	SB-19-W-30	2.5	6/20/2016	527+50	28	--	14
SB-20	SB-20-W-6	0.5	6/20/2016	527+30	14	--	86
SB-20	SB-20-W-18	1.5	6/20/2016	527+30	13	--	9.5
SB-20	SB-20-W-30	2.5	6/20/2016	527+30	18	--	9.6
SB-21	SB-21-C-6	0.5	6/20/2016	527+25	4.6 J+	--	7.2
SB-21	SB-21-C-18	1.5	6/20/2016	527+25	2.3 R	--	2.7
SB-22	SB-22-E-6	0.5	6/20/2016	527+30	5.2 J+	--	5.5
SB-22	SB-22-E-18	1.5	6/20/2016	527+30	26	--	22
SB-22	SB-22-E-30	2.5	6/20/2016	527+30	8.0	--	15
SB-23	SB-23-E-6	0.5	6/20/2016	527+50	4.9 J+	--	6.3
SB-23	SB-23-E-18	1.5	6/20/2016	527+50	22	--	23
SB-23	SB-23-E-30	2.5	6/20/2016	527+50	2.8 J+	--	2.8
SB-24	SB-24-E-6	0.5	6/20/2016	527+75	6.3	--	5.2
SB-24	SB-24-E-18	1.5	6/20/2016	527+75	29	--	13
SB-24	SB-24-E-30	2.5	6/20/2016	527+75	2.9	--	2.5
SB-25	SB-25-C-6	0.5	6/20/2016	527+75	35	--	12
SB-25	SB-25-C-18	1.5	6/20/2016	527+75	16	--	9.8
SB-26	SB-26-E-6	0.5	6/20/2016	527+94	1.9	--	1.3
SB-26	SB-26-E-18	1.5	6/20/2016	527+94	14	--	10
SB-26	SB-26-E-30	2.5	6/20/2016	527+94	12	--	9.9
SB-27	SB-27-C-6	0.5	6/20/2016	526+67	16	--	11
SB-27	SB-27-C-18	1.5	6/20/2016	526+67	10	--	8.9
SB-27	SB-27-C-30	2.5	6/20/2016	526+67	6.4	--	11
SB-28	SB-28-E-6	0.5	6/20/2016	526+68	12	--	13
SB-28	SB-28-E-18	1.5	6/20/2016	526+68	10	--	8.6
SB-28	SB-28-E-30	2.5	6/20/2016	526+68	20	--	11

TABLE 1**SOIL ANALYTICAL RESULTS**

VTA BART EXTENSION PROJECT, C742 BERRYESSA STATION CAMPUS AREA/ROADWAY

SAN JOSE, CALIFORNIA

Location ID	Sample ID	Depth (ft bgs)	Sample Date	Approximate VTA Station	Arsenic (mg/kg)	Arsenic TCLP (mg/L)	Lead (mg/kg)
SB-29	SB-29-W-6	0.5	6/20/2016	526+75	12	--	11
SB-29	SB-29-W-18	1.5	6/20/2016	526+75	13	--	11
SB-29	SB-29-W-30	2.5	6/20/2016	526+75	5.2	--	11

Maximum Detected Concentration (mg/kg)	160	--	89
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Abbreviations:

ft bgs = feet below ground surface

J+ = estimated result; analyte was detected in the laboratory method blank

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

TCLP = toxicity characteristic leaching procedure

ND = analyte not detected at the indicated analytical practical quantitation limit

R = rejected result; analyte was detected in the laboratory method blank, and the project sample result is less than 10 times the concentration detected in the laboratory method blank

TABLE 2
SUMMARY OF SCREENING LEVELS FOR DUST IN WORK ZONE AIR
 VTA BART EXTENSION PROJECT, C742 BERRYESSA STATION CAMPUS AREA
 SAN JOSE, CALIFORNIA

Constituent	Maximum Detected Concentration (mg/kg)		Work Zone Action Levels	
			Permissible Exposure Limit ¹ (PEL) (mg/m ³)	Dust Action Level (mg/m ³)
	2013	2016²		Based on 2013 Data
Arsenic	655.6	160	0.01	15
Lead	150.7	89	0.05	332
CA OSHA PEL for Respirable Dust ³				5
CA OSHA PEL for Total Dust ³				10

Equation

$$\text{Dust Action Level (mg/m}^3\text{)} = \frac{\text{Permissible Exposure Limit (mg/m}^3\text{)} \times 1,000,000 \text{ (mg/kg)}}{\text{Maximum Soil Concentration (mg/kg)}}$$

Notes:

- 1 Permissible Exposure Limits published by California Division of Occupational Safety and Health (Cal/OSHA) <https://www.osha.gov/dsg/annotated-pels/tablez-1.html>
- 2 The maximum detections of arsenic and lead detected in 2016 are presented in this table for comparison only. Note that the dust action level is calculated using the 2013 data. This data was generated prior to mixing of the soil with lime and its replacement between Stations 526+60 and 531+70.
- 3 <https://www.dir.ca.gov/title8/ac1.pdf>
- 4 Note that for an exposure to occur above a PEL for either arsenic or lead, it would be necessary to generate a higher concentration of dust than allowed under Cal/OSHA-established dust limits, assuming a time-weighted average over an 8-hour workday.

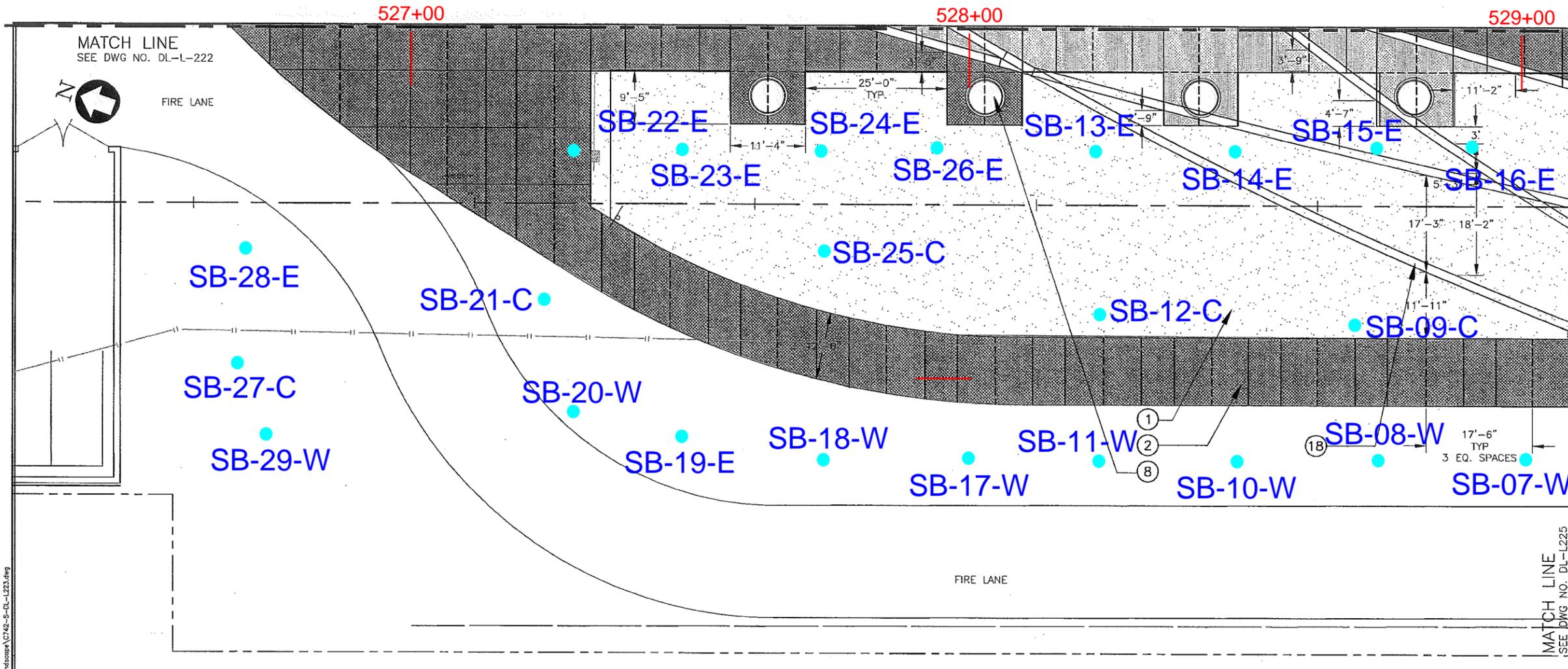
Abbreviations:

mg/kg = milligrams per kilogram

mg/m³ = milligrams per cubic meter

ATTACHMENT 1

Soil Boring Locations

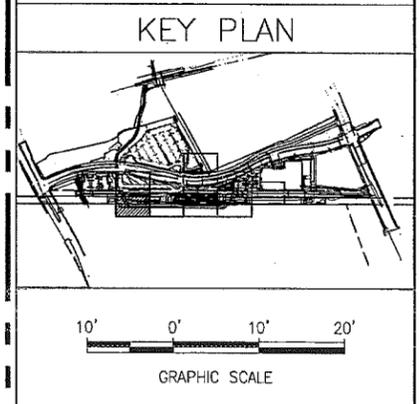


KEY NOTES	
①	PLANTING AREA
②	CONCRETE SIDEWALK, SEE CIVIL DWGS
⑧	PRECAST CONCRETE PLANTER
⑱	CONCRETE BAND IN PLANTER

LEGEND	
(A)	CONCRETE COLOR (DARK) DAVIS COLOR 677
(B)	CONCRETE COLOR (MEDIUM) DAVIS COLOR 10134
(C)	CONCRETE COLOR (LIGHT) DAVIS COLOR 5237
	PLANTED AREA
	• Soil Boring
C742 CONTRACT LIMIT OF LANDSCAPE WORK	
CITY OF SAN JOSE ROW	
EXPANSION JOINT SEE DETAIL 4/L-502	
LAYOUT NOTE: SEE DETAILS 4.5/L-501 FOR LAYOUT GUIDE OF BANDS AND SCORING	

GENERAL PAVING AND BAND LAYOUT NOTES:

1. VERTICAL JOINTS ARE ALIGNED WITH BUILDING AND TRACK COLUMN GRID (70' O.C.)
EXPANSION JOINTS ALIGN WITH CENTERLINE OF COLUMNS. THE 70' LAYOUT GRID IS DIVIDED EQUALLY INTO 4 SECTIONS (EJ'S @ 17'-6" O.C.)
2. SCORE JOINTS DIVIDE 17'-6" GRID INTO THIRDS (5'-8" SCORED PAVING MODULE).
3. CAD FILE WILL BE PROVIDED TO CONTRACTOR FOR LAYOUT OF BANDS IN PAVING AND BANDS IN PLANTING AREAS.
4. BAND LAYOUT DIMENSIONS ARE PROVIDED ONLY FOR OFFICE REFERENCE.



CITY OF SAN JOSE
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES DIVISION

APPROVED
Michael L. Morris
Date 9-29-15

PLAN
SCALE: 1"=10'-0"

Aug 19, 2015 2:45pm C:\Users\vlhobrian\Desktop\Merrill_L Morris (2)\2015\518X Campus Roadway PS\DWG Berryessa\C742 -CONTRACT Landscape\C742-S-DL-L223.dwg
 Nicholas

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20150828				CONFORMED



Merrill Landscape Architects & Planners
 cal. Lic. #2690 www.merrill-morris.com
 249 Front Street San Francisco, CA 94111
 P. 415.291.8960 F. 415.291.9463

SUBMITTED *Daniel L. Morris*

WMH WMH Corporation, Inc.
 50 West San Fernando Street, Suite 950
 San Jose, CA 95113-2412
 Tel (408) 971-7300
 Fax (408) 971-7400

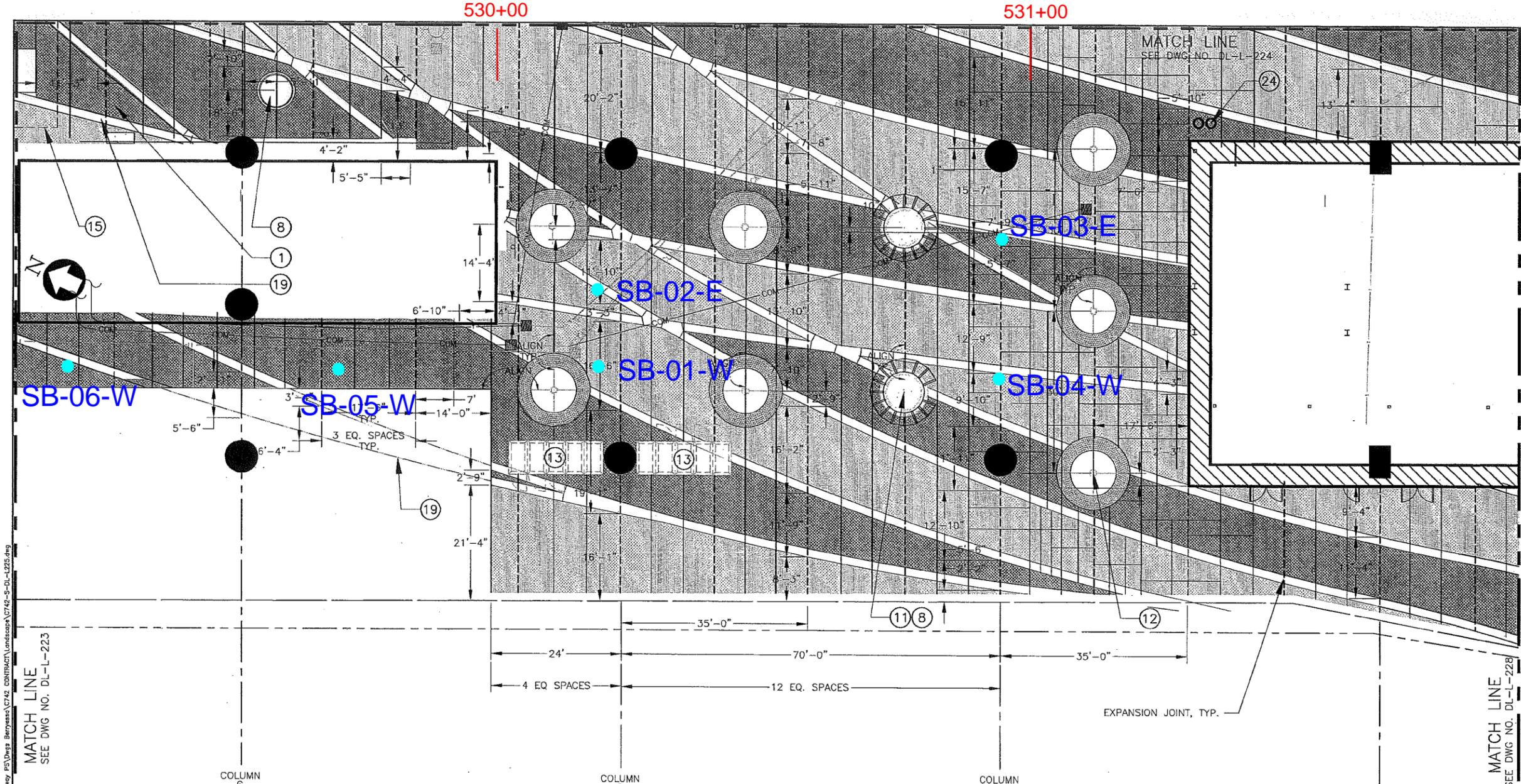
APPROVED *Michael L. Morris*



CAMPUS AREAS AND ROADWAYS
 BERRYESSA STATION
 LANDSCAPE LAYOUT PLAN ENLARGEMENT

BART SILICON VALLEY BERRYESSA EXTENSION

CADD FILENAME	C742-S-DL-L223.dwg
SIZE	D
SCALE	1"=10'-0"
CONTRACT NO.	C742
REV.	0
AREA CODE	DL
SHEET NO.	L-223
PAGE NO.	196



KEY NOTES

- ① PLANTING AREA
- ⑧ PRECAST CONCRETE PLANTER — DL-L-502
- ⑪ CIRCULAR METAL BENCH — DL-L-502
- ⑬ BIKE LOCKERS
- ⑫ PLAZA PAVING CIRCLE — DL-L-501
- ⑮ SCWD VAULT, SEE CIVIL DRAWINGS
- ⑱ CONCRETE BAND IN PLANTING AREAS — DL-L-505
- ⑳ TRASH AND RECYCLING CONTAINERS

LEGEND

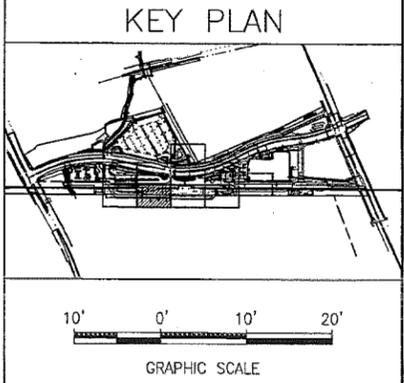
A	CONCRETE COLOR (DARK) DAVIS COLOR 677	
B	CONCRETE COLOR (MEDIUM) DAVIS COLOR 10134	
C	CONCRETE BAND COLOR (LIGHT) DAVIS COLOR 5237	
	PLANTED AREA	
	• Soil Boring	

C742 CONTRACT
LIMIT OF LANDSCAPE WORK ————

CITY OF SAN JOSE ROW ————

EXPANSION JOINT
SEE DETAIL 4/L-502

LAYOUT NOTE: SEE DETAILS 4,5/L-501
FOR LAYOUT GUIDE OF BANDS AND
SCORING



GENERAL PAVING AND BAND LAYOUT NOTES:

1. VERTICAL JOINTS ARE ALIGNED WITH BUILDING AND TRACK COLUMN GRID (70' O.C.)
EXPANSION JOINTS ALIGN WITH CENTERLINE OF COLUMNS. THE 70' LAYOUT GRID IS DIVIDED EQUALLY INTO 4 SECTIONS (EJ'S @ 17'-6" O.C.)
2. SCORE JOINTS DIVIDE 17'-6" GRID INTO THIRDS (5'-8" SCORED PAVING MODULE).
3. CAD FILE WILL BE PROVIDED TO CONTRACTOR FOR LAYOUT OF BANDS IN PAVING AND BANDS IN PLANTING AREAS.
4. BAND LAYOUT DIMENSIONS ARE PROVIDED ONLY FOR OFFICE REFERENCE.

CITY OF SAN JOSE
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES DIVISION

APPROVED
Michael Lin 9-29-15
Date

PLAN
SCALE: 1"=10'-0"

DESIGNED BY S. STOHLER					
DRAWN BY N. JOHNSON					
CHECKED BY J. POTIS					
IN CHARGE D. MORRIS					
DATE 20150828					
REV	DATE	BY	SUB	APP	DESCRIPTION
0	20150828				CONFORMED

Merrill Landscape Architects & Planners
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 50 West San Fernando Street, Suite 950
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 Tel (408) 971-7300 Fax (408) 971-7400

SUBMITTED *Daniel Morris* APPROVED *S. Stohler*

BART
VTA SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

CAMPUS AREAS AND ROADWAYS
BERRYESSA STATION
LANDSCAPE LAYOUT PLAN ENLARGEMENT

CADD FILENAME C742-S-DL-L225.dwg
SIZE SCALE D 1"=10'-0"
CONTRACT NO. REV. C742 0
AREA CODE SHEET NO. PAGE NO. DL L-225 198

ATTACHMENT 2

**Torrent Laboratory Analytical Reports
1606133, 1606134, 1606135, 1606036**



Haley & Aldrich
2033 N. Main Street, Suite 309
Walnut Creek, California 94596-7260
Tel: 925-949-1012

RE: VTA Bart Extension-In-Situ Sampling

Work Order No.: 1606133

Dear Jennifer Boyer:

Torrent Laboratory, Inc. received 20 sample(s) on June 20, 2016 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

Patti Sandrock
QA Officer

June 21, 2016

Date



Date: 6/21/2016

Client: Haley & Aldrich

Project: VTA Bart Extension-In-Situ Sampling

Work Order: 1606133

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-01-W-6 1606133-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.6	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.1	mg/Kg

SB-01-W-18 1606133-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	15	mg/Kg
Lead	SW6010B	1	0.13	1.0	13	mg/Kg

SB-02-RH-6 1606133-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.6	mg/Kg
Lead	SW6010B	1	0.13	1.0	10	mg/Kg

SB-02-E-18 1606133-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	23	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.0	mg/Kg

SB-03-E-6 1606133-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.3	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.6	mg/Kg

SB-03-E-18 1606133-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	160	mg/Kg
Lead	SW6010B	1	0.13	1.0	16	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-04-W-6 1606133-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.7	mg/Kg
Lead	SW6010B	1	0.13	1.0	9.0	mg/Kg

SB-04-W-18 1606133-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.

SB-05-W-6 1606133-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.1	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg

SB-05-W-18 1606133-010

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	22	mg/Kg
Lead	SW6010B	1	0.13	1.0	15	mg/Kg

SB-06-W-6 1606133-011

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.8	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.6	mg/Kg

SB-06-W-18 1606133-012

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	100	mg/Kg
Lead	SW6010B	1	0.13	1.0	89	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-07-W-6 1606133-013

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	15	mg/Kg
Lead	SW6010B	1	0.13	1.0	9.0	mg/Kg

SB-07-W-18 1606133-014

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.3	mg/Kg
Lead	SW6010B	1	0.13	1.0	3.0	mg/Kg

SB-07-W-30 1606133-015

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	11	mg/Kg
Lead	SW6010B	1	0.13	1.0	24	mg/Kg

SB-08-W-6 1606133-016

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	1.8	mg/Kg

SB-08-W-18 1606133-017

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	19	mg/Kg
Lead	SW6010B	1	0.13	1.0	7.5	mg/Kg

SB-08-W-30 1606133-018

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	11	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16
1606133-019

SB-09-C-6

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.5	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.3	mg/Kg

SB-09-C-18

1606133-020

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	15	mg/Kg
Lead	SW6010B	1	0.13	1.0	7.5	mg/Kg



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-01-W-6	Lab Sample ID:	1606133-001A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 7:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	6.6		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.1		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-01-W-18	Lab Sample ID:	1606133-002A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 7:56		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	15		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	13		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-02-RH-6	Lab Sample ID:	1606133-003A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	6.6		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	10		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-02-E-18	Lab Sample ID:	1606133-004A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	23		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.0		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-03-E-6	Lab Sample ID:	1606133-005A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:12		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	7.3		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.6		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-03-E-18	Lab Sample ID:	1606133-006A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:12		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	160		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	16		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-04-W-6	Lab Sample ID:	1606133-007A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:17		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	7.7		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	9.0		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-04-W-18	Lab Sample ID:	1606133-008A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:17		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	ND		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	ND		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-05-W-6	Lab Sample ID:	1606133-009A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:27		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	7.1		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	12		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-05-W-18	Lab Sample ID:	1606133-010A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:27		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	22		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	15		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-06-W-6	Lab Sample ID:	1606133-011A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:32		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	6.8		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.6		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-06-W-18	Lab Sample ID:	1606133-012A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:32		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	100		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	89		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-07-W-6	Lab Sample ID:	1606133-013A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:44		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	15		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	9.0		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-07-W-18	Lab Sample ID:	1606133-014A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:44		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	8.3		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	3.0		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-07-W-30	Lab Sample ID:	1606133-015A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:44		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	11		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	24		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-08-W-6	Lab Sample ID:	1606133-016A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:49		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	1.8		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	ND		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-08-W-18	Lab Sample ID:	1606133-017A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:49		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	19		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	7.5		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-08-W-30	Lab Sample ID:	1606133-018A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 8:49		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	11		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	12		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-09-C-6	Lab Sample ID:	1606133-019A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:25		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	6.5		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.3		mg/Kg	430613	17424



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-09-C-18	Lab Sample ID:	1606133-020A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:25		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	15		mg/Kg	430613	17424
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	7.5		mg/Kg	430613	17424



MB Summary Report

Work Order:	1606133	Prep Method:	3050	Prep Date:	06/20/16	Prep Batch:	17424
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430613
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Arsenic	0.25	1.7	ND	
Lead	0.14	1.0	ND	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606133	Prep Method:	3050	Prep Date:	06/20/16	Prep Batch:	17424
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430613
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	ND	50	97.9	109	10.3	71 - 121	30	
Lead	0.14	1.0	ND	50	99.6	110	9.56	67.9 - 118	30	



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606133	Prep Method:	3050	Prep Date:	06/20/16	Prep Batch:	17424
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430613
Spiked Sample:	1606133-001A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	0.13	50	99.5	98.2	1.61	71 - 121	30	
Lead	0.14	1.0	0.16	50	88.8	86.4	2.51	67.9 - 118	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Haley & Aldrich

Date and Time Received: 6/20/2016 16:50

Project Name: VTA Bart Extension-In-Situ Sampling

Received By: ldi

Work Order No.: 1606133

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt? N/A
pH Checked by: na pH Adjusted by: na



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : 1606133

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606133-001A	SB-01-W-6	06/20/16 7:50	Soil	12/17/16			S_6010BAs/Pb EDD	
Sample Note: RUSH 1 Day!!! As, Pb.								
1606133-002A	SB-01-W-18	06/20/16 7:56	Soil	12/17/16			S_6010BAs/Pb	
1606133-003A	SB-02-RH-6	06/20/16 8:00	Soil	12/17/16			S_6010BAs/Pb	
1606133-004A	SB-02-E-18	06/20/16 8:00	Soil	12/17/16			S_6010BAs/Pb	
1606133-005A	SB-03-E-6	06/20/16 8:12	Soil	12/17/16			S_6010BAs/Pb	
1606133-006A	SB-03-E-18	06/20/16 8:12	Soil	12/17/16			S_6010BAs/Pb	
1606133-007A	SB-04-W-6	06/20/16 8:17	Soil	12/17/16			S_6010BAs/Pb	
1606133-008A	SB-04-W-18	06/20/16 8:17	Soil	12/17/16			S_6010BAs/Pb	
1606133-009A	SB-05-W-6	06/20/16 8:27	Soil	12/17/16			S_6010BAs/Pb	
1606133-010A	SB-05-W-18	06/20/16 8:27	Soil	12/17/16			S_6010BAs/Pb	
1606133-011A	SB-06-W-6	06/20/16 8:32	Soil	12/17/16			S_6010BAs/Pb	
1606133-012A	SB-06-W-18	06/20/16 8:32	Soil	12/17/16			S_6010BAs/Pb	
1606133-013A	SB-07-W-6	06/20/16 8:44	Soil	12/17/16			S_6010BAs/Pb	
1606133-014A	SB-07-W-18	06/20/16 8:44	Soil	12/17/16			S_6010BAs/Pb	
1606133-015A	SB-07-W-30	06/20/16 8:44	Soil	12/17/16			S_6010BAs/Pb	
1606133-016A	SB-08-W-6	06/20/16 8:49	Soil	12/17/16			S_6010BAs/Pb	
1606133-017A	SB-08-W-18	06/20/16 8:49	Soil	12/17/16			S_6010BAs/Pb	



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : **1606133**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606133-018A	SB-08-W-30	06/20/16 8:49	Soil	12/17/16			S_6010BAs/Pb	
1606133-019A	SB-09-C-6	06/20/16 9:25	Soil	12/17/16			S_6010BAs/Pb	
1606133-020A	SB-09-C-18	06/20/16 9:25	Soil	12/17/16			S_6010BAs/Pb	



483 Sinclair Frontage Road
 Milpitas, CA 95035
 Phone: 408.263.5258
 FAX: 408.263.8293
 www.torrentlab.com

CHAIN OF CUSTODY

LAB WORK ORDER NO

1606133

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: Soil Sampling		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	
				EMAIL: JBOYER@HALEYALDRICH.COM	

TURNAROUND TIME:		SAMPLE TYPE:		REPORT FORMAT:	
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> QC Level IV	ANALYSIS REQUESTED
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Other	<input type="checkbox"/> EDF	
<input type="checkbox"/> 5 Work Days	<input checked="" type="checkbox"/> 1 Work Day	<input type="checkbox"/> Ground Water	<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> Excel / EDD	
<input type="checkbox"/> Noon - Nxt Day	<input type="checkbox"/> 2 - 8 Hours	<input type="checkbox"/> Other			

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)					REMARKS
001A	SB-01-W-6	6/20/16 750	Soil	1	sleeve	✓	✓					
002A	SB-02-W-18	6/20/16 756	Soil	1	sleeve	✓	✓					
003A	SB-03- E ^{PH} -6	6/20/16 800	Soil	1	sleeve	✓	✓					
004A	SB-04-E-18	6/20/16 800	Soil	1	sleeve	✓	✓					
005A	SB-05-E-6	6/20/16 812	Soil	1	sleeve	✓	✓					
006A	SB-06-E-18	6/20/16 812	Soil	1	sleeve	✓	✓					
007A	SB-07-W-6	6/20/16 817	Soil	1	sleeve	✓	✓					
008A	SB-08-W-18	6/20/16 817	Soil	1	sleeve	✓	✓					
009A	SB-09-W-6	6/20/16 827	Soil	1	sleeve	✓	✓					Temp. 3°C T #1
010A	SB-10-W-18	6/20/16 827	Soil	1	sleeve	✓	✓					

**RUSH
1 DAY**

1	Relinquished By: Rachel Hahn	Print:	Date: 6/20/16	Time: 1600	Received By:	Print: L-D-Imbal	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment **D/O** Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Page _____ of _____

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____



Haley & Aldrich
2033 N. Main Street, Suite 309
Walnut Creek, California 94596-7260
Tel: 925-949-1012

RE: VTA Bart Extension-In-Situ Sampling

Work Order No.: 1606134

Dear Jennifer Boyer:

Torrent Laboratory, Inc. received 20 sample(s) on June 20, 2016 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

Patti Sandrock
QA Officer

June 21, 2016

Date



Date: 6/21/2016

Client: Haley & Aldrich

Project: VTA Bart Extension-In-Situ Sampling

Work Order: 1606134

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-10-W-6 1606134-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.3	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.7	mg/Kg

SB-10-W-18 1606134-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	11	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg

SB-10-W-30 1606134-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.7	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-11-W-6 1606134-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-11-W-18 1606134-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.7	mg/Kg
Lead	SW6010B	1	0.13	1.0	10	mg/Kg

SB-11-W-30 1606134-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	17	mg/Kg
Lead	SW6010B	1	0.13	1.0	14	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-12-C-6 1606134-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	3.5	mg/Kg
Lead	SW6010B	1	0.13	1.0	6.2	mg/Kg

SB-12-C-18 1606134-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	62	mg/Kg
Lead	SW6010B	1	0.13	1.0	23	mg/Kg

SB-13-E-6 1606134-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-13-E-18 1606134-010

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
Lead	SW6010B	1	0.13	1.0	10	mg/Kg

SB-13-E-30 1606134-011

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	28	mg/Kg
Lead	SW6010B	1	0.13	1.0	16	mg/Kg

SB-14-E-6 1606134-012

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	14	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-14-E-18 1606134-013

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	15	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-14-E-30 1606134-014

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.1	mg/Kg
Lead	SW6010B	1	0.13	1.0	18	mg/Kg

SB-15-E-6 1606134-015

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	13	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-15-E-18 1606134-016

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.6	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-15-E-30 1606134-017

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	4.8	mg/Kg
Lead	SW6010B	1	0.13	1.0	17	mg/Kg

SB-16-E-6 1606134-018

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	10	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16
1606134-019

SB-16-E-18

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.2	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-16-E-30

1606134-020

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.0	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.0	mg/Kg



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-10-W-6	Lab Sample ID:	1606134-001A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:33		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	8.3		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.7		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-10-W-18	Lab Sample ID:	1606134-002A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:34		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	11		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	12		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-10-W-30	Lab Sample ID:	1606134-003A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:35		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	7.7		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-11-W-6	Lab Sample ID:	1606134-004A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:39		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	16		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-11-W-18	Lab Sample ID:	1606134-005A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:40		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	7.7		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	10		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-11-W-30	Lab Sample ID:	1606134-006A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:41		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	17		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	14		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-12-C-6	Lab Sample ID:	1606134-007A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:45		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	3.5		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	6.2		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-12-C-18	Lab Sample ID:	1606134-008A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:46		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	62		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	23		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-13-E-6	Lab Sample ID:	1606134-009A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	16		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-13-E-18	Lab Sample ID:	1606134-010A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:51		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	16		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	10		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-13-E-30	Lab Sample ID:	1606134-011A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:52		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	28		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	16		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-14-E-6	Lab Sample ID:	1606134-012A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:55		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	14		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-14-E-18	Lab Sample ID:	1606134-013A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:56		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	15		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-14-E-30	Lab Sample ID:	1606134-014A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 9:57		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	8.1		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	18		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-15-E-6	Lab Sample ID:	1606134-015A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:02		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	13		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-15-E-18	Lab Sample ID:	1606134-016A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:03		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	8.6		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-15-E-30	Lab Sample ID:	1606134-017A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:04		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	4.8		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	17		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-16-E-6	Lab Sample ID:	1606134-018A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:08		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	10		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	12		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-16-E-18	Lab Sample ID:	1606134-019A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:09		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	6.2		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	11		mg/Kg	430614	17425



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-16-E-30	Lab Sample ID:	1606134-020A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:10		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/20/16	06/21/16	1	0.28	1.7	7.0		mg/Kg	430614	17425
Lead	SW6010B	6/20/16	06/21/16	1	0.13	1.0	8.0		mg/Kg	430614	17425



MB Summary Report

Work Order:	1606134	Prep Method:	3050	Prep Date:	06/20/16	Prep Batch:	17425
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430614
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Arsenic	0.25	1.7	1.6		
Lead	0.14	1.0	ND		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606134	Prep Method:	3050	Prep Date:	06/20/16	Prep Batch:	17425
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430614
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	1.6	50	102	102	0.391	71 - 121	30	
Lead	0.14	1.0	ND	50	104	104	0.192	67.9 - 118	30	



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606134	Prep Method:	3050	Prep Date:	06/20/16	Prep Batch:	17425
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430614
Spiked Sample:	1606134-001A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	0.17	50	95.1	87.7	6.74	71 - 121	30	
Lead	0.14	1.0	0.17	50	86.8	81.4	5.58	67.9 - 118	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Haley & Aldrich

Date and Time Received: 6/20/2016 16:50

Project Name: VTA Bart Extension-In-Situ Sampling

Received By: ldi

Work Order No.: 1606134

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt? N/A
pH Checked by: na pH Adjusted by: na



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : **1606134**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606134-001A	SB-10-W-6	06/20/16 9:33	Soil	12/17/16			S_6010BAs/Pb	
Sample Note:	RUSH 1 Day!!! As, Pb.							
1606134-002A	SB-10-W-18	06/20/16 9:34	Soil	12/17/16			S_6010BAs/Pb	
1606134-003A	SB-10-W-30	06/20/16 9:35	Soil	12/17/16			S_6010BAs/Pb	
1606134-004A	SB-11-W-6	06/20/16 9:39	Soil	12/17/16			S_6010BAs/Pb	
1606134-005A	SB-11-W-18	06/20/16 9:40	Soil	12/17/16			S_6010BAs/Pb	
1606134-006A	SB-11-W-30	06/20/16 9:41	Soil	12/17/16			S_6010BAs/Pb	
1606134-007A	SB-12-C-6	06/20/16 9:45	Soil	12/17/16			S_6010BAs/Pb	
1606134-008A	SB-12-C-18	06/20/16 9:46	Soil	12/17/16			S_6010BAs/Pb	
1606134-009A	SB-13-E-6	06/20/16 9:50	Soil	12/17/16			S_6010BAs/Pb	
1606134-010A	SB-13-E-18	06/20/16 9:51	Soil	12/17/16			S_6010BAs/Pb	
1606134-011A	SB-13-E-30	06/20/16 9:52	Soil	12/17/16			S_6010BAs/Pb	
1606134-012A	SB-14-E-6	06/20/16 9:55	Soil	12/17/16			S_6010BAs/Pb	
1606134-013A	SB-14-E-18	06/20/16 9:56	Soil	12/17/16			S_6010BAs/Pb	
1606134-014A	SB-14-E-30	06/20/16 9:57	Soil	12/17/16			S_6010BAs/Pb	
1606134-015A	SB-15-E-6	06/20/16 10:02	Soil	12/17/16			S_6010BAs/Pb	
1606134-016A	SB-15-E-18	06/20/16 10:03	Soil	12/17/16			S_6010BAs/Pb	
1606134-017A	SB-15-E-30	06/20/16 10:04	Soil	12/17/16			S_6010BAs/Pb	
1606134-018A	SB-16-E-6	06/20/16 10:08	Soil	12/17/16			S_6010BAs/Pb	



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : **1606134**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606134-019A	SB-16-E-18	06/20/16 10:09	Soil	12/17/16			S_6010BAs/Pb	
1606134-020A	SB-16-E-30	06/20/16 10:10	Soil	12/17/16			S_6010BAs/Pb	



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CHAIN OF CUSTODY

LAB WORK ORDER NO

1606134

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: soil samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	
				EMAIL: JBOYER@HALEYALDRICH.COM	

TURNAROUND TIME: <input type="checkbox"/> 10 Work Days <input type="checkbox"/> 3 Work Days <input type="checkbox"/> Noon - Nxt Day <input type="checkbox"/> 7 Work Days <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 2 - 8 Hours <input type="checkbox"/> 5 Work Days <input checked="" type="checkbox"/> 1 Work Day <input type="checkbox"/> Other			SAMPLE TYPE: <input type="checkbox"/> Storm Water <input type="checkbox"/> Air <input type="checkbox"/> Waste Water <input type="checkbox"/> Other <input type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Soil			REPORT FORMAT: <input type="checkbox"/> QC Level IV <input type="checkbox"/> EDF <input checked="" type="checkbox"/> Excel / EDD			ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)									REMARKS	
001A	SB-21-W-6	6/20/16 933	Soil	1	sleeve	✓	✓										
002A	SB-22-W-18	6/20/16 934	Soil	1	sleeve	✓	✓										
003A	SB-23-W-30	6/20/16 935	Soil	1	sleeve	✓	✓										
004A	SB-24-W-6	6/20/16 939	Soil	1	sleeve	✓	✓										
005A	SB-25-W-18	6/20/16 940	Soil	1	sleeve	✓	✓										
006A	SB-26-W-30	6/20/16 941	Soil	1	sleeve	✓	✓										
007A	SB-27-C-6	6/20/16 945	Soil	1	sleeve	✓	✓										
008A	SB-28-C-18	6/20/16 946	Soil	1	sleeve	✓	✓										Temp 3 T #1
009A	SB-29-E-18	6/20/16 950	Soil	1	sleeve	✓	✓										
010A	SB-30-E-18	6/20/16 951	Soil	1	sleeve	✓	✓										

RUSH 1 DAY

1	Relinquished By: Rachel Mann RN	Print: RN	Date: 6/20/16	Time: 1600	Received By: [Signature]	Print: L-D. J...	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: D/O Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page ___ of ___

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____



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CHAIN OF CUSTODY

LAB WORK ORDER NO

1606134

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: soil samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:	P.O. #: 39684-004		EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME:

- 10 Work Days 3 Work Days Noon - Nxt Day
 7 Work Days 2 Work Days 2 - 8 Hours
 5 Work Days 1 Work Day Other

SAMPLE TYPE:

- Storm Water Air
 Waste Water Other
 Ground Water
 Soil

REPORT FORMAT:

- QC Level IV
 EDF
 Excel / EDD

Arsenic (6010B)

Lead (6010B)

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)									REMARKS	
017A	SB-31-E-30	06/20/16 952	Soil	1	sleeve	✓	✓										
012A	SB-32-E-6	06/20/16 955	Soil	1	sleeve	✓	✓										
013A	SB-33-E-18	06/20/16 956	Soil	1	sleeve	✓	✓										
014A	SB-34-E-30	06/20/16 957	Soil	1	sleeve	✓	✓										
015A	SB-35-E-6	06/20/16 1002	Soil	1	sleeve	✓	✓										
016A	SB-36-E-18	06/20/16 1003	Soil	1	sleeve	✓	✓										
017A	SB-37-E-30	06/20/16 1004	Soil	1	sleeve	✓	✓										
018A	SB-38-E-6	06/20/16 1008	Soil	1	sleeve	✓	✓										
019A	SB-39-E-18	06/20/16 1009	Soil	1	sleeve	✓	✓										Temp. 3°C T #1
020A	SB-40-E-30	06/20/16 1010	Soil	1	sleeve	✓	✓										

RUSH 1 DAY

1	Relinquished By: Rachel Mann	Print: [Signature]	Date: 06/20/16	Time: 1600	Received By: [Signature]	Print: C-D-Imbead	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: DU Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page _____ of _____

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____



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CHAIN OF CUSTODY

LAB WORK ORDER NO

1604034 rev IDS

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: soil samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME: <input type="checkbox"/> 10 Work Days <input type="checkbox"/> 3 Work Days <input type="checkbox"/> Noon - Net Day <input type="checkbox"/> 7 Work Days <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 2 8 Hours <input type="checkbox"/> 5 Work Days <input checked="" type="checkbox"/> 1 Work Day <input type="checkbox"/> Other		SAMPLE TYPE: <input type="checkbox"/> Storm Water <input type="checkbox"/> Air <input type="checkbox"/> Wastewater <input type="checkbox"/> Other <input type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Soil		REPORT FORMAT: <input type="checkbox"/> OC Level IV <input type="checkbox"/> EDF <input checked="" type="checkbox"/> Excel / EDO		ANALYSIS REQUESTED
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LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)					REMARKS
011A	SB-13-E-30	06/20/16 952	Soil	1	sleeve	✓	✓					
012A	SB-14-E-6	06/20/16 955	Soil	1	sleeve	✓	✓					
013A	SB-14-E-18	06/20/16 956	Soil	1	sleeve	✓	✓					
014A	SB-14-E-30	06/20/16 957	Soil	1	sleeve	✓	✓					
015A	SB-15-E-6	06/20/16 1002	Soil	1	sleeve	✓	✓					
016A	SB-15-E-18	06/20/16 1003	Soil	1	sleeve	✓	✓					
017A	SB-15-E-30	06/20/16 1004	Soil	1	sleeve	✓	✓					
018A	SB-16-E-6	06/20/16 1008	Soil	1	sleeve	✓	✓					
019A	SB-16-E-18	06/20/16 1009	Soil	1	sleeve	✓	✓					
020A	SB-16-E-30	06/20/16 1010	Soil	1	sleeve	✓	✓					

1	Relinquished By: Rachel Honn	Print: [Signature]	Date: 06/20/16	Time: 1600	Received By: [Signature]	Print: L-D-Imbed	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: **DU** Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page **4** of **8**



Haley & Aldrich
2033 N. Main Street, Suite 309
Walnut Creek, California 94596-7260
Tel: 925-949-1012

RE: VTA Bart Extension-In-Situ Sampling

Work Order No.: 1606135

Dear Jennifer Boyer:

Torrent Laboratory, Inc. received 20 sample(s) on June 20, 2016 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

Patti Sandrock
QA Officer

June 21, 2016

Date



Date: 6/21/2016

Client: Haley & Aldrich

Project: VTA Bart Extension-In-Situ Sampling

Work Order: 1606135

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

SB-17-W-6 1606135-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	10	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.9	mg/Kg

SB-17-W-18 1606135-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	7.4	mg/Kg
Lead	SW6010B	1	0.13	1.0	10	mg/Kg

SB-17-W-30 1606135-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	18	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg

SB-18-W-6 1606135-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	31	mg/Kg
Lead	SW6010B	1	0.13	1.0	14	mg/Kg

SB-18-W-18 1606135-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	13	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-18-W-30 1606135-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	5.6	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

SB-19-W-6 1606135-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	17	mg/Kg
Lead	SW6010B	1	0.13	1.0	13	mg/Kg

SB-19-W-18 1606135-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	17	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-19-W-30 1606135-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	28	mg/Kg
Lead	SW6010B	1	0.13	1.0	14	mg/Kg

SB-20-W-6 1606135-010

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	14	mg/Kg
Lead	SW6010B	1	0.13	1.0	86	mg/Kg

SB-20-W-18 1606135-011

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	13	mg/Kg
Lead	SW6010B	1	0.13	1.0	9.5	mg/Kg

SB-20-W-30 1606135-012

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	18	mg/Kg
Lead	SW6010B	1	0.13	1.0	9.6	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-21-C-6 1606135-013

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	4.6	mg/Kg
Lead	SW6010B	1	0.13	1.0	7.2	mg/Kg

SB-21-C-18 1606135-014

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	2.3	mg/Kg
Lead	SW6010B	1	0.13	1.0	2.7	mg/Kg

SB-22-E-6 1606135-015

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	5.2	mg/Kg
Lead	SW6010B	1	0.13	1.0	5.5	mg/Kg

SB-56-E-18 1606135-016

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	26	mg/Kg
Lead	SW6010B	1	0.13	1.0	22	mg/Kg

SB-22-E-30 1606135-017

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	8.0	mg/Kg
Lead	SW6010B	1	0.13	1.0	15	mg/Kg

SB-23-E-6 1606135-018

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	4.9	mg/Kg
Lead	SW6010B	1	0.13	1.0	6.3	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16
1606135-019

SB-23-E-18

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	22	mg/Kg
Lead	SW6010B	1	0.13	1.0	23	mg/Kg

SB-23-E-30

1606135-020

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	2.8	mg/Kg
Lead	SW6010B	1	0.13	1.0	2.8	mg/Kg



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-17-W-6	Lab Sample ID:	1606135-001A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:24		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	10		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	8.9		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-17-W-18	Lab Sample ID:	1606135-002A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:25		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	7.4		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	10		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-17-W-30	Lab Sample ID:	1606135-003A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:26		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	18		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	12		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-18-W-6	Lab Sample ID:	1606135-004A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:29		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	31		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	14		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-18-W-18	Lab Sample ID:	1606135-005A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:30		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	13		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-18-W-30	Lab Sample ID:	1606135-006A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:31		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	5.6		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	12		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-19-W-6	Lab Sample ID:	1606135-007A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:42		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	17		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	13		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-19-W-18	Lab Sample ID:	1606135-008A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:43		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	17		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-19-W-30	Lab Sample ID:	1606135-009A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:44		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	28		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	14		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-20-W-6	Lab Sample ID:	1606135-010A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:47		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	14		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	86		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-20-W-18	Lab Sample ID:	1606135-011A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:48		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	13		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	9.5		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-20-W-30	Lab Sample ID:	1606135-012A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:49		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	18		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	9.6		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-21-C-6	Lab Sample ID:	1606135-013A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:52		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	4.6		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	7.2		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-21-C-18	Lab Sample ID:	1606135-014A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 10:53		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	2.3		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	2.7		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-22-E-6	Lab Sample ID:	1606135-015A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	5.2		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	5.5		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-56-E-18	Lab Sample ID:	1606135-016A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:01		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	26		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	22		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-22-E-30	Lab Sample ID:	1606135-017A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:02		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	8.0		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	15		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-23-E-6	Lab Sample ID:	1606135-018A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:06		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	4.9		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	6.3		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-23-E-18	Lab Sample ID:	1606135-019A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:07		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	22		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	23		mg/Kg	430622	17429



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-23-E-30	Lab Sample ID:	1606135-020A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:08		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	2.8		mg/Kg	430622	17429
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	2.8		mg/Kg	430622	17429



MB Summary Report

Work Order:	1606135	Prep Method:	3050	Prep Date:	06/21/16	Prep Batch:	17429
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430622
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Arsenic	0.25	1.7	0.66		
Lead	0.14	1.0	ND		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606135	Prep Method:	3050	Prep Date:	06/21/16	Prep Batch:	17429
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430622
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	0.66	50	96.7	98.2	1.52	71 - 121	30	
Lead	0.14	1.0	ND	50	101	99.7	1.26	67.9 - 118	30	



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606135	Prep Method:	3050	Prep Date:	06/21/16	Prep Batch:	17429
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430622
Spiked Sample:	1606135-001A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	0.21	50	95.7	96.0	0.000	71 - 121	30	
Lead	0.14	1.0	0.18	50	83.0	83.6	0.592	67.9 - 118	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Haley & Aldrich

Date and Time Received: 6/20/2016 16:50

Project Name: VTA Bart Extension-In-Situ Sampling

Received By: li

Work Order No.: 1606135

Physically Logged By: ke

Checklist Completed By: ke

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt? N/A
pH Checked by: na pH Adjusted by: na



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : **1606135**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606135-001A	SB-17-W-6	06/20/16 10:24	Soil	12/17/16			S_6010BAs/Pb	
1606135-002A	SB-17-W-18	06/20/16 10:25	Soil	12/17/16			S_6010BAs/Pb	
1606135-003A	SB-17-W-30	06/20/16 10:26	Soil	12/17/16			S_6010BAs/Pb	
1606135-004A	SB-18-W-6	06/20/16 10:29	Soil	12/17/16			S_6010BAs/Pb	
1606135-005A	SB-18-W-18	06/20/16 10:30	Soil	12/17/16			S_6010BAs/Pb	
1606135-006A	SB-18-W-30	06/20/16 10:31	Soil	12/17/16			S_6010BAs/Pb	
1606135-007A	SB-19-W-6	06/20/16 10:42	Soil	12/17/16			S_6010BAs/Pb	
1606135-008A	SB-19-W-18	06/20/16 10:43	Soil	12/17/16			S_6010BAs/Pb	
1606135-009A	SB-19-W-30	06/20/16 10:44	Soil	12/17/16			S_6010BAs/Pb	
1606135-010A	SB-20-W-6	06/20/16 10:47	Soil	12/17/16			S_6010BAs/Pb	
1606135-011A	SB-20-W-18	06/20/16 10:48	Soil	12/17/16			S_6010BAs/Pb	
1606135-012A	SB-20-W-30	06/20/16 10:49	Soil	12/17/16			S_6010BAs/Pb	
1606135-013A	SB-21-C-6	06/20/16 10:52	Soil	12/17/16			S_6010BAs/Pb	
1606135-014A	SB-21-C-18	06/20/16 10:53	Soil	12/17/16			S_6010BAs/Pb	
1606135-015A	SB-22-E-6	06/20/16 11:00	Soil	12/17/16			S_6010BAs/Pb	
1606135-016A	SB-56-E-18	06/20/16 11:01	Soil	12/17/16			S_6010BAs/Pb	
1606135-017A	SB-22-E-30	06/20/16 11:02	Soil	12/17/16			S_6010BAs/Pb	
1606135-018A	SB-23-E-6	06/20/16 11:06	Soil	12/17/16			S_6010BAs/Pb	
1606135-019A	SB-23-E-18	06/20/16 11:07	Soil	12/17/16			S_6010BAs/Pb	



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : **1606135**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606135-020A	SB-23-E-30	06/20/16 11:08	Soil	12/17/16			S_6010BAs/Pb S_6010BAs/Pb	



483 Sinclair Frontage Road
 Milpitas, CA 95035
 Phone: 408.263.5258
 FAX: 408.263.8293
 www.torrentlab.com

RESET

CHAIN OF CUSTODY

LAB WORK ORDER NO

1604135

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: Soil Samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:	P.O. #: 39684-004		EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME:

- 10 Work Days
- 7 Work Days
- 5 Work Days
- 3 Work Days
- 2 Work Days
- 1 Work Day
- Noon - Nxt Day
- 2 - 8 Hours
- Other

SAMPLE TYPE:

- Storm Water
- Waste Water
- Ground Water
- Soil
- Air
- Other

REPORT FORMAT:

- QC Level IV
- EDF
- Excel / EDD

Arsenic (6010B)

Lead (6010B)

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)	REMARKS
0017A	SB-41 - W-6	06/20/16 1024	Soil	1	sleeve	✓	✓	
0027A	SB-42 - W-18	06/20/16 1025	Soil	1	sleeve	✓	✓	
0037A	SB-43 - W-30	06/20/16 1026	Soil	1	sleeve	✓	✓	
0047A	SB-44 - W-6	06/20/16 1029	Soil	1	sleeve	✓	✓	
0057A	SB-45 - W-18	06/20/16 1030	Soil	1	sleeve	✓	✓	
0067A	SB-46 - W-30	06/20/16 1031	Soil	1	sleeve	✓	✓	
0077A	SB-47 - W-6	06/20/16 1042	Soil	1	sleeve	✓	✓	
0087A	SB-48 - W-18	06/20/16 1043	Soil	1	sleeve	✓	✓	
0097A	SB-49 - W-30	06/20/16 1044	Soil	1	sleeve	✓	✓	
0107A	SB-50 - W-6	06/20/16 1047	Soil	1	sleeve	✓	✓	

RUSH 1 DAY

1	Relinquished By: Rachel Mann Print: RM	Date: 06/20/16	Time: 1000	Received By: [Signature] Print: E.D. Jemel	Date: 6-20-16	Time: 5:10
2	Relinquished By:	Date:	Time:	Received By:	Date:	Time: 6/20/16

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment **D/D** Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. **30C#1** Page _____ of _____

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____



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 Milpitas, CA 95035
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 FAX: 408.263.8293
 www.torrentlab.com

CHAIN OF CUSTODY

LAB WORK ORDER NO

1000135

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: Soil samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME:

- 10 Work Days 3 Work Days Noon - Nxt Day
 7 Work Days 2 Work Days 2 - 8 Hours
 5 Work Days 1 Work Day Other

SAMPLE TYPE:

- Storm Water Air
 Waste Water Other
 Ground Water
 Soil

REPORT FORMAT:

- QC Level IV
 EDF
 Excel / EDD

Arsenic (6010B)

Lead (6010B)

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)									REMARKS	
011A	SB-S1-W-18 SB-S1-E-30	06/20/16 1048	Soil	1	sleeve	✓	✓										
012A	SB-S2-W-30	06/20/16 1049	Soil	1	sleeve	✓	✓										
013A	SB-S3-C-6	06/20/16 1052	Soil	1	sleeve	✓	✓										
014A	SB-S4-C-18	06/20/16 1053	Soil	1	sleeve	✓	✓										
015A	SB-S5-E-6	06/20/16 1100	Soil	1	sleeve	✓	✓										
016A	SB-S6-E-18	06/20/16 1101	Soil	1	sleeve	✓	✓										
017A	SB-S7-E-30	06/20/16 1102	Soil	1	sleeve	✓	✓										
018A	SB-S8-E-6	06/20/16 1104	Soil	1	sleeve	✓	✓										
019A	SB-S9-E-18	06/20/16 1107	Soil	1	sleeve	✓	✓										
020A	SB-S6-E-30	06/20/16 1108	Soil	1	sleeve	✓	✓										

RUSH 1 DAY

1	Relinquished By: Rachel Hohn	Print: [Signature]	Date: 06/20/16	Time: 1600	Received By: [Signature]	Print: C-D-Imbat	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: D/D Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. 30C #1 Page _____ of _____

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____



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CHAIN OF CUSTODY

LAB WORK ORDER NO

1600135 rev ID5

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: Soil Samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME:		SAMPLE TYPE:		REPORT FORMAT:		ANALYSIS REQUESTED
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> OC Level IV		
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Other	<input type="checkbox"/> EDF		
<input type="checkbox"/> 5 Work Days	<input checked="" type="checkbox"/> 1 Work Day	<input type="checkbox"/> Ground Water	<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> Excel / EDO		

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)						REMARKS
001A	SB-17-W-6	06/20/16 1024	Soil	1	sleeve	✓	✓						
002A	SB-17-W-18	06/20/16 1025	Soil	1	sleeve	✓	✓						
003A	SB-17-W-30	06/20/16 1026	Soil	1	sleeve	✓	✓						
004A	SB-18-W-6	06/20/16 1028	Soil	1	sleeve	✓	✓						
005A	SB-18-W-18	06/20/16 1030	Soil	1	sleeve	✓	✓						
006A	SB-18-W-30	06/20/16 1031	Soil	1	sleeve	✓	✓						
007A	SB-19-W-6	06/20/16 1042	Soil	1	sleeve	✓	✓						
008A	SB-19-W-18	06/20/16 1043	Soil	1	sleeve	✓	✓						
009A	SB-19-W-30	06/20/16 1044	Soil	1	sleeve	✓	✓						
010A	SB-20-W-6	06/20/16 1047	Soil	1	sleeve	✓	✓						

1	Relinquished By: Rachel Mann	Print: RMM	Date: 06/20/16	Time: 1600	Received By: [Signature]	Print: L.D. Jones	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment **D/D** Sample seals intact? Yes NO N/A
 NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page **5** of **8**



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RESET

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO
 1000135 rev JDG

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: <u>Soil samples</u>		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME: <input type="checkbox"/> 10 Work Days <input type="checkbox"/> 3 Work Days <input type="checkbox"/> Noon - Next Day <input type="checkbox"/> 7 Work Days <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 2 - 8 Hours <input type="checkbox"/> 5 Work Days <input checked="" type="checkbox"/> 1 Work Day <input type="checkbox"/> Other			SAMPLE TYPE: <input type="checkbox"/> Storm Water <input type="checkbox"/> Air <input type="checkbox"/> Waste Water <input type="checkbox"/> Other <input type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Soil			REPORT FORMAT: <input type="checkbox"/> QC Level IV <input type="checkbox"/> EDF <input checked="" type="checkbox"/> Excel / EDO			ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)	REMARKS
011A	SB-20-W-30 ^{CH}	06/20/16 1048	Soil	1	sleeve	✓	✓	
012A	SB-20-W-30	06/20/16 1049	Soil	1	sleeve	✓	✓	
013A	SB-21-C-6	06/20/16 1052	Soil	1	sleeve	✓	✓	
014A	SB-21-C-18	06/20/16 1053	Soil	1	sleeve	✓	✓	
015A	SB-22-E-6	06/20/16 1100	Soil	1	sleeve	✓	✓	
016A	SB-22-E-18	06/20/16 1101	Soil	1	sleeve	✓	✓	
017A	SB-22-E-30	06/20/16 1102	Soil	1	sleeve	✓	✓	
018A	SB-23-E-6	06/20/16 1106	Soil	1	sleeve	✓	✓	
019A	SB-23-E-18	06/20/16 1107	Soil	1	sleeve	✓	✓	
020A	SB-23-E-30	06/20/16 1108	Soil	1	sleeve	✓	✓	

1	Relinquished By: Rachel Mann	Print: <i>RM</i>	Date: 06/20/16	Time: 1100	Received By: <i>[Signature]</i>	Print: L.D. Imbal	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: D/D Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 0 of 8



Haley & Aldrich
2033 N. Main Street, Suite 309
Walnut Creek, California 94596-7260
Tel: 925-949-1012

RE: VTA Bart Extension-In-Situ Sampling

Work Order No.: 1606136

Dear Jennifer Boyer:

Torrent Laboratory, Inc. received 17 sample(s) on June 20, 2016 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

Patti Sandrock
QA Officer

June 21, 2016

Date



Date: 6/21/2016

Client: Haley & Aldrich

Project: VTA Bart Extension-In-Situ Sampling

Work Order: 1606136

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-24-E-6 1606136-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.3	mg/Kg
Lead	SW6010B	1	0.13	1.0	5.2	mg/Kg

SB-24-E-18 1606136-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	29	mg/Kg
Lead	SW6010B	1	0.13	1.0	13	mg/Kg

SB-24-E-30 1606136-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	2.9	mg/Kg
Lead	SW6010B	1	0.13	1.0	2.5	mg/Kg

SB-25-C-6 1606136-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	35	mg/Kg
Lead	SW6010B	1	0.13	1.0	12	mg/Kg

SB-25-C-18 1606136-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
Lead	SW6010B	1	0.13	1.0	9.8	mg/Kg

SB-26-E-6 1606136-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	1.9	mg/Kg
Lead	SW6010B	1	0.13	1.0	1.3	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

SB-26-E-18 1606136-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	14	mg/Kg
Lead	SW6010B	1	0.13	1.0	10	mg/Kg

SB-26-E-30 1606136-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	12	mg/Kg
Lead	SW6010B	1	0.13	1.0	9.9	mg/Kg

SB-27-C-6 1606136-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	16	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-27-C-18 1606136-010

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	10	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.9	mg/Kg

SB-27-C-30 1606136-011

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	6.4	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-28-E-6 1606136-012

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	12	mg/Kg
Lead	SW6010B	1	0.13	1.0	13	mg/Kg



Sample Result Summary

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16

Date Reported: 06/21/16

SB-28-E-18 1606136-013

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	10	mg/Kg
Lead	SW6010B	1	0.13	1.0	8.6	mg/Kg

SB-28-E-30 1606136-014

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	20	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-29-W-6 1606136-015

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	12	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-29-W-18 1606136-016

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	13	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

SB-29-W-30 1606136-017

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.28	1.7	5.2	mg/Kg
Lead	SW6010B	1	0.13	1.0	11	mg/Kg



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-24-E-6	Lab Sample ID:	1606136-001A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:13		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	6.3		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	5.2		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-24-E-18	Lab Sample ID:	1606136-002A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:14		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	29		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	13		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-24-E-30	Lab Sample ID:	1606136-003A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:15		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	2.9		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	2.5		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-25-C-6	Lab Sample ID:	1606136-004A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:18		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	35		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	12		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-25-C-18	Lab Sample ID:	1606136-005A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:19		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	16		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	9.8		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-26-E-6	Lab Sample ID:	1606136-006A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:25		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	1.9		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	1.3		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-26-E-18	Lab Sample ID:	1606136-007A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:26		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	14		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	10		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-26-E-30	Lab Sample ID:	1606136-008A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 11:27		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	12		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	9.9		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-27-C-6	Lab Sample ID:	1606136-009A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:29		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	16		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-27-C-18	Lab Sample ID:	1606136-010A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:30		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	10		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	8.9		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-27-C-30	Lab Sample ID:	1606136-011A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:31		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	6.4		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-28-E-6	Lab Sample ID:	1606136-012A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:34		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	12		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	13		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-28-E-18	Lab Sample ID:	1606136-013A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:35		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	10		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	8.6		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-28-E-30	Lab Sample ID:	1606136-014A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:36		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	20		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-29-W-6	Lab Sample ID:	1606136-015A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:41		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	12		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-29-W-18	Lab Sample ID:	1606136-016A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:42		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	13		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430623	17430



SAMPLE RESULTS

Report prepared for: Jennifer Boyer
Haley & Aldrich

Date Received: 06/20/16
Date Reported: 06/21/16

Client Sample ID:	SB-29-W-30	Lab Sample ID:	1606136-017A
Project Name/Location:	VTA Bart Extension-In-Situ Sampling	Sample Matrix:	Soil
Project Number:			
Date/Time Sampled:	06/20/16 / 12:43		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	6/21/16	06/21/16	1	0.28	1.7	5.2		mg/Kg	430623	17430
Lead	SW6010B	6/21/16	06/21/16	1	0.13	1.0	11		mg/Kg	430623	17430



MB Summary Report

Work Order:	1606136	Prep Method:	3050	Prep Date:	06/21/16	Prep Batch:	17430
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430623
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Arsenic	0.25	1.7	ND		
Lead	0.14	1.0	ND		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606136	Prep Method:	3050	Prep Date:	06/21/16	Prep Batch:	17430
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430623
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	ND	50	99.1	99.7	0.553	71 - 121	30	
Lead	0.14	1.0	ND	50	101	99.1	1.87	67.9 - 118	30	



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1606136	Prep Method:	3050	Prep Date:	06/21/16	Prep Batch:	17430
Matrix:	Soil	Analytical Method:	SW6010B	Analyzed Date:	06/21/16	Analytical Batch:	430623
Spiked Sample:	1606136-001A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.7	0.13	50	93.9	91.4	2.46	71 - 121	30	
Lead	0.14	1.0	0.100	50	87.7	75.8	13.0	67.9 - 118	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Haley & Aldrich

Date and Time Received: 6/20/2016 16:50

Project Name: VTA Bart Extension-In-Situ Sampling

Received By: li

Work Order No.: 1606136

Physically Logged By: ke

Checklist Completed By: ke

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt?

pH Checked by: na

pH Adjusted by: na



Login Summary Report

Client ID: TL5574 Haley & Aldrich
Project Name: VTA Bart Extension-In-Situ Sampling
Project # :
Report Due Date: 6/21/2016

QC Level:
TAT Requested: Next Day:100
Date Received: 6/20/2016
Time Received: 16:50

Comments:

Work Order # : **1606136**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1606136-001A	SB-24-E-6	06/20/16 11:13	Soil	12/17/16			S_6010BAs/Pb	
1606136-002A	SB-24-E-18	06/20/16 11:14	Soil	12/17/16			S_6010BAs/Pb	
1606136-003A	SB-24-E-30	06/20/16 11:15	Soil	12/17/16			S_6010BAs/Pb	
1606136-004A	SB-25-C-6	06/20/16 11:18	Soil	12/17/16			S_6010BAs/Pb	
1606136-005A	SB-25-C-18	06/20/16 11:19	Soil	12/17/16			S_6010BAs/Pb	
1606136-006A	SB-26-E-6	06/20/16 11:25	Soil	12/17/16			S_6010BAs/Pb	
1606136-007A	SB-26-E-18	06/20/16 11:26	Soil	12/17/16			S_6010BAs/Pb	
1606136-008A	SB-26-E-30	06/20/16 11:27	Soil	12/17/16			S_6010BAs/Pb	
1606136-009A	SB-27-C-6	06/20/16 12:29	Soil	12/17/16			S_6010BAs/Pb	
1606136-010A	SB-27-C-18	06/20/16 12:30	Soil	12/17/16			S_6010BAs/Pb	
1606136-011A	SB-27-C-30	06/20/16 12:31	Soil	12/17/16			S_6010BAs/Pb	
1606136-012A	SB-28-E-6	06/20/16 12:34	Soil	12/17/16			S_6010BAs/Pb	
1606136-013A	SB-28-E-18	06/20/16 12:35	Soil	12/17/16			S_6010BAs/Pb	
1606136-014A	SB-28-E-30	06/20/16 12:36	Soil	12/17/16			S_6010BAs/Pb	
1606136-015A	SB-29-W-6	06/20/16 12:41	Soil	12/17/16			S_6010BAs/Pb	
1606136-016A	SB-29-W-18	06/20/16 12:42	Soil	12/17/16			S_6010BAs/Pb	
1606136-017A	SB-29-W-30	06/20/16 12:43	Soil	12/17/16			S_6010BAs/Pb	



483 Sinclair Frontage Road
 Milpitas, CA 95035
 Phone: 408.263.5258
 FAX: 408.263.8293
 www.torrentlab.com

CHAIN OF CUSTODY

LAB WORK ORDER NO

1606136

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: Soil Samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:		P.O. #: 39684-004	EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME:

- 10 Work Days 3 Work Days Noon - Nxt Day
 7 Work Days 2 Work Days 2 - 8 Hours
 5 Work Days 1 Work Day Other

SAMPLE TYPE:

- Storm Water Air
 Waste Water Other
 Ground Water
 Soil

REPORT FORMAT:

- QC Level IV
 EDF
 Excel / EDD

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)	REMARKS			
0117A	SB-71 - C-30	06/20/16 1231	Soil	1	sleeve	✓	✓				
012A	SB-72 - E-6	06/20/16 1234	Soil	1	sleeve	✓	✓				
013A	SB-73 - E-18	06/20/16 1235	Soil	1	sleeve	✓	✓				
014A	SB-74 - E-30	06/20/16 1236	Soil	1	sleeve	✓	✓				
015A	SB-75 - W-6	06/20/16 1241	Soil	1	sleeve	✓	✓				
016A	SB-76 - W-18	06/20/16 1242	Soil	1	sleeve	✓	✓				
017A	SB-77 - W-30	06/20/16 1243	Soil	1	sleeve	✓	✓				
			Soil	1	sleeve	✓	✓				
			Soil	1	sleeve	✓	✓				
			Soil	1	sleeve	✓	✓				

RUSH
1 DAY

1	Relinquished By: <u>Rachel Mohr</u>	Print:	Date: <u>06/20/16</u>	Time: <u>1600</u>	Received By: <u>[Signature]</u>	Print: <u>L.D. J...</u>	Date: <u>6-20-16</u>	Time: <u>1600</u>
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time: <u>1600</u>

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: D/D Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. 3°C #) Page _____ of _____

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____



483 Sinclair Frontage Road
 Milpitas, CA 95035
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 FAX: 408.263.8293
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CHAIN OF CUSTODY

LAB WORK ORDER NO
 1606130 Rev ID5

* NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY *

Company Name: HALEY & ALDRICH, INC.			Location of Sampling: VTA BART Extension - In-Situ Sampling		
Address: 2107 NORTH FIRST STREET, SUITE 380			Purpose: Soil Samples		
City: SAN JOSE	State: CA	Zip Code: 95131	Special Instructions / Comments:		
Telephone: 408-961-4808		FAX: 408-453-8708			
REPORT TO: JENNIFER BOYER		SAMPLER:	P.O. #: 39684-004		EMAIL: JBOYER@HALEYALDRICH.COM

TURNAROUND TIME: <input type="checkbox"/> 10 Work Days <input type="checkbox"/> 3 Work Days <input type="checkbox"/> Noon - Not Day <input type="checkbox"/> 7 Work Days <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 2-8 Hours <input type="checkbox"/> 5 Work Days <input checked="" type="checkbox"/> 1 Work Day <input type="checkbox"/> Other			SAMPLE TYPE: <input type="checkbox"/> Storm Water <input type="checkbox"/> Air <input type="checkbox"/> Waste Water <input type="checkbox"/> Other <input type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Soil			REPORT FORMAT: <input type="checkbox"/> QC Level IV <input type="checkbox"/> EDF <input checked="" type="checkbox"/> Excel / EDO			ANALYSIS REQUESTED
			Arsenic (6010B) Lead (6010B)						

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Arsenic (6010B)	Lead (6010B)	REMARKS
011A	SB-27-C-30	06/20/16 1231	Soil	1	sleeve	✓	✓	
012A	SB-28-E-6	06/20/16 1234	Soil	1	sleeve	✓	✓	
013A	SB-28-E-18	06/20/16 1235	Soil	1	sleeve	✓	✓	
014A	SB-28-E-30	06/20/16 1236	Soil	1	sleeve	✓	✓	
015A	SB-29-W-6	06/20/16 1241	Soil	1	sleeve	✓	✓	
016A	SB-29-W-18	06/20/16 1242	Soil	1	sleeve	✓	✓	
017A	SB-29-W-30	06/20/16 1243	Soil	1	sleeve	✓	✓	
 			Soil	1	sleeve	✓	✓	
 			Soil	1	sleeve	✓	✓	
 			Soil	1	sleeve	✓	✓	

1	Relinquished By: Rachel Mohn	Print:	Date: 06/20/16	Time: 1600	Received By: [Signature]	Print: L. D. Jewel	Date: 6-20-16	Time: 1600
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: D/D Sample seals intact? Yes NO N/A
 NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 8 of 8



Rush Turnaround Services REQUEST FORM



Date | 6/20/16
 Company | Haley & Aldrich
 Ordered By | Jennifer Boyer
 Email | _____
 (for Rush report)

Confirmation Number | _____

For Torrent Lab Use Only

Project Name | _____
 Project Number | _____
 Order ID | 1506133-136
 Order Taken By | _____
 Accounting | _____

Project Details

TAT Requested
 (please check one)

- Same Day (2-8 Hours)
 One Day
 ↳ Noon
 2 Day
 ↳ Noon
 3 Day
 ↳ Noon
 4 Day
 ↳ Noon

Number of Samples | 77
 Matrix | Soil
 (i.e., sample type: Is your sample soil, water, etc?)
 Analysis | Lead/Arsenic

Weekend work required (refer to chart below for respective surcharge)

This request form may be a courtesy notice which reflects the rush services requested on the chain-of-custody. Please contact *Torrent Express*SM project management immediately at pm@torrentlab.com with the subject line "Rush TAT Cancellation" if you do not want the analysis(es) to proceed. Cancellation of a *Torrent Express*SM service may be subject to a cancellation fee.

In order to facilitate processing and scheduling, please notify Torrent Laboratory at least 24 hours in advance for any *Torrent Express*SM service. Sample(s) must be received or scheduled for pick-up before 5:00 pm in order to be processed that day; all samples received after 5:00 pm will be processed the following day.

All *Torrent Express*SM Same Day and Next Day rush services will be charged a \$250.00 minimum (excluding certain fees) plus the respective surcharge(s); all other *Torrent Express*SM rush services will be charged a \$150.00 minimum (excluding certain fees) plus the respective surcharge(s).

The following table briefly describes Torrent Laboratory's *Torrent Express*SM surcharge pricing structure, please refer to your company specific price list for the precise surcharges.

	Same Day	Next Day*	2 Day*	3 Day*	4 Day*
Regular Rush	300%	150%	75%	50%	37.5%
Noon	–	200%	100%	62.5%	50%
Weekend	300%	300%	–	–	–

*business day(s)

ATTACHMENT 3

Data Usability Summary Reports

Data Usability Summary Report (DUSR)
VTA Bart Extension In-Situ Sampling
Analytical Laboratory: Torrent Laboratory, Inc. - Milpitas, CA
Sample Delivery Group # 1606133

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-013-001) and method protocol criteria where applicable as prescribed by “Test Methods for Evaluating Solid Waste”, SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID	Sample ID	Sample ID
SB-01-W-6	SB-04-W-18	SB-07-W-30
SB-01-W-18	SB-05-W-6	SB-08-W-6
SB-02-RH-6 (SB-02-E-6)	SB-05-W-18	SB-08-W-18
SB-02-E-18	SB-06-W-6	SB-08-W-30
SB-03-E-6	SB-06-W-18	SB-09-C-6
SB-03-E-18	SB-07-W-6	SB-09-C-18
SB-04-W-6	SB-07-W-18	

Project Samples were analyzed according to the following analytical methods:

	Parameter	Analytical Method	Holding Time Criteria
1.	ICP Metals - Arsenic & Lead Only	EPA 6010B	180 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- Project-specific Reporting Limits
- Blank Sample Analysis
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

Project-specific Reporting Limits

The reporting limits for the samples within this Sample Delivery Group (SDG) met or exceeded the minimum reporting limit requirements specified by the Project-specific Quality Assurance Project Plan (QAPP). No qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria, with the following exception(s):

LCS ID / Project Sample MS	Type	Target Analyte(s)	%R	Affected Sample(s)	Positive Results	Non Detect (ND)
SB-01-W-6	MS/MSD	Arsenic, Total	Within	None, all within limits.		
430613	MS/MSD	Lead, Total	Within	None, all within limits.		

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

Date: 6/22/2016

Data Usability Summary Report (DUSR)
VTA Bart Extension In-Situ Sampling
Analytical Laboratory: Torrent Laboratory, Inc. - Milpitas, CA
Sample Delivery Group # 1606134

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-013-001)

and method protocol criteria where applicable as prescribed by “Test Methods for Evaluating Solid Waste”, SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID	Sample ID	Sample ID
SB-10-W-6	SB-12-C-18	SB-15-E-6
SB-10-W-18	SB-13-E-6	SB-15-E-18
SB-10-W-30	SB-13-E-18	SB-15-E-30
SB-11-W-6	SB-13-E-30	SB-16-E-6
SB-11-W-18	SB-14-E-6	SB-16-E-18
SB-11-W-30	SB-14-E-18	SB-16-E-30
SB-12-C-6	SB-14-E-30	

Project Samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
1. ICP Metals - Arsenic & Lead Only	EPA 6010B	180 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- Project-specific Reporting Limits
- Blank Sample Analysis
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

Project-specific Reporting Limits

The reporting limits for the samples within this Sample Delivery Group (SDG) met or exceeded the minimum reporting limit requirements specified by the Project-specific Quality Assurance Project Plan (QAPP). No qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Analyte(s)	Concn.	Affected Sample(s)	Qualifiers
Method Blank 430614	Arsenic, Total	1.6 J mg/kg	All Batch Samples except: SB-11-W-30 SB-12-C-18 SB-13-E-30	J+

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria, with the following exception(s):

LCS ID / Project Sample MS	Type	Target Analyte(s)	%R	Affected Sample(s)	Positive Results	Non Detect (ND)
SB-10-W-6	MS/MSD	Arsenic, Total	Within	None, all within limits.		
430614	MS/MSD	Lead, Total	Within	None, all within limits.		

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

Date: 6/22/2016

Data Usability Summary Report (DUSR)
VTA Bart Extension In-Situ Sampling
Analytical Laboratory: Torrent Laboratory, Inc. - Milpitas, CA
Sample Delivery Group # 1606135

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-013-001) and method protocol criteria where applicable as prescribed by “Test Methods for Evaluating Solid Waste”, SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID	Sample ID	Sample ID
SB-17-W-6	SB-19-W-18	SB-22-E-6
SB-17-W-18	SB-19-W-30	SB-56-E-18 (SB-22-E-18)
SB-17-W-30	SB-20-W-6	SB-22-E-30
SB-18-W-6	SB-20-W-18	SB-23-E-6
SB-18-W-18	SB-20-W-30	SB-23-E-18
SB-18-W-30	SB-21-C-6	SB-23-E-30
SB-19-W-6	SB-21-C-18	

Project Samples were analyzed according to the following analytical methods:

	Parameter	Analytical Method	Holding Time Criteria
1.	ICP Metals - Arsenic & Lead Only	EPA 6010B	180 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- Project-specific Reporting Limits
- Blank Sample Analysis
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

Project-specific Reporting Limits

The reporting limits for the samples within this Sample Delivery Group (SDG) met or exceeded the minimum reporting limit requirements specified by the Project-specific Quality Assurance Project Plan (QAPP). No qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Analyte(s)	Concn.	Affected Sample(s)	Qualifiers
Method Blank 430622	Arsenic, Total	0.66 J mg/kg	SB-21-C-18 SB-23-E-30 SB-21-C-6 SB-23-E-6 SB-22-E-6 SB-18-W-30	R J+ J+ J+ J+ J+

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria, with the following exception(s):

LCS ID / Project Sample MS	Type	Target Analyte(s)	%R	Affected Sample(s)	Positive Results	Non Detect (ND)
SB-17-W-6 430622	MS/MSD MS/MSD	Arsenic, Total Lead, Total	Within Within	None, all within limits. None, all within limits.		

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

Date: 6/22/2016

Data Usability Summary Report (DUSR)
VTA Bart Extension In-Situ Sampling
Analytical Laboratory: Torrent Laboratory, Inc. - Milpitas, CA
Sample Delivery Group # 1606136

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-04-004) and method protocol criteria where applicable as prescribed by “Test Methods for Evaluating Solid Waste”, SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID	Sample ID	Sample ID
SB-24-E-6	SB-26-E-18	SB-28-E-18
SB-24-E-18	SB-26-E-30	SB-28-E-30
SB-24-E-30	SB-27-C-6	SB-29-W-6
SB-25-C-6	SB-27-C-18	SB-29-W-18
SB-25-C-18	SB-27-C-30	SB-29-W-30
SB-26-E-6	SB-28-E-6	

Project Samples were analyzed according to the following analytical methods:

	Parameter	Analytical Method	Holding Time Criteria
1.	ICP Metals - Arsenic & Lead Only	EPA 6010B	180 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- Project-specific Reporting Limits
- Blank Sample Analysis
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

Project-specific Reporting Limits

The reporting limits for the samples within this Sample Delivery Group (SDG) met or exceeded the minimum reporting limit requirements specified by the Project-specific Quality Assurance Project Plan (QAPP). No qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria, with the following exception(s):

LCS ID / Project Sample MS	Type	Target Analyte(s)	%R	Affected Sample(s)	Positive Results	Non Detect (ND)
SB-24-E-6	MS/MSD	Arsenic, Total	Within	None, all within limits.		
430623	MS/MSD	Lead, Total	Within	None, all within limits.		

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

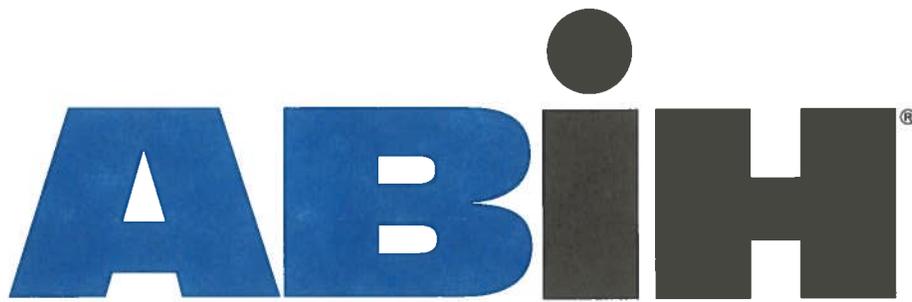
Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

Date: 6/22/2016

ATTACHMENT 4

Anita Broughton's, American Board of Industrial Hygiene Certificate



american board of industrial hygiene®

**organized to improve the practice of industrial hygiene
proclaims that**

Anita Brencce Broughton

**having met all requirements of
education, experience and examination, and
ongoing maintenance,
is hereby certified in the**

**COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE**

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH

Certificate Number	5682 CP
Awarded:	December 7, 1992
Expiration Date:	June 1, 2019



Mark B. Ferris

Chair ABIH

Lynn C. O'Sonnell

Executive Director ABIH