February 20, 2018

ADDITIONAL SUBSURFACE INVESTIGATION & WATER WELL EVALUATION

Property Identification:
Cypress Point
Carlos Street and Sierra Street
Moss Beach, San Mateo County, California 94038

AEI Project No. 350428

Prepared for:
Mr. Andrew Bielak
MidPen Housing Corporation
303 Vintage Park Drive, Suite 250
Foster City, California 94404

Prepared by:
AEI Consultants
3880 S. Bascom Avenue, Suite 109
San Jose, California 95124
(408) 559-7600

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

AEI Consultants
Environmental & Engineering Services

February 20, 2018

Mr. Andrew Bielak
MidPen Housing Corporation
303 Vintage Park Drive, Suite 250
Foster City, California 94404

Re: Additional Subsurface Investigation & Water Well Evaluation
Project Number 350428
Cypress Point
Carlos Street and Sierra Street
Moss Beach, San Mateo County, California 94038

Dear Mr. Bielak:

This report presents the results of the Additional Subsurface Investigation conducted by AEI Consultants (AEI) for the Cypress Point development project, located to the north of the intersection of Carlos Street and Sierra Street in Moss Beach, San Mateo County, California (the "Site"). This report has been prepared based on the conclusions and recommendations presented in AEI's *Limited Phase II Subsurface Investigation Report* dated February 15, 2016, as well as in accordance with AEI's proposal dated May 11, 2017 (AEI Proposal No. 52158).

During AEI's *Limited Phase II Subsurface Investigation*, thirty-four (34) exploratory borings (B-1 through B-34) were advanced at the Site. Soil samples obtained at the borings were analyzed for the presence of total petroleum hydrocarbons as gasoline (TPH-g), as diesel (TPH-d), and as motor oil (TPH-mo), as well as for polychlorinated biphenyls (PCBs), metals, total hexafurans, and other dioxins/furans (at few boring locations). Analytical results for soils showed concentrations of lead exceeding applicable San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for any land use/any depth (for construction workers) and residential land use at the 0.0-foot depth at two (2) boring locations (B-7 and B-21). The horizontal extent of lead-impacted soils around these two (2) locations was undefined. The vertical extent of lead-impacted soils at these locations had been delineated based on lead concentrations not exceeding applicable RWQCB ESLs. The locations of the exploratory borings are shown on Figure 1.

An existing water supply well (upper well) also had been identified at the Site during the *Limited Phase II Subsurface Investigation*. The surface completion for this well was found to consist of a rusted, welded steel plate covering the top of the well casing that is encased within a rectangular-shaped, concrete pad. At the time of the Limited Phase II Subsurface Investigation, it was unknown if the well had been properly abandoned in accordance with San Mateo County Environmental Health (SMCEH) regulations.

The purpose of this investigation was to assess the horizontal extent of lead-impacted soils around Borings B-7 and B-21 that were found to exceed applicable RWQCB ESLs. The scope of work included a limited drilling/confirmation sampling program and further inspection and evaluation of the existing water supply well for future abandonment purposes. Information regarding the methodology and results of the investigation is provided in the following sections of this report.

1.0 HEALTH AND SAFETY PLAN

The Site-specific health and safety plan for this project was updated, reviewed by onsite personnel, and kept onsite for the duration of the fieldwork

2.0 PERMITTING AND UNDERGROUND SERVICES ALERT NOTIFICATION

No drilling permit was required from SMCEH for this investigation.

Prior to conducting the drilling program, the planned boring locations were staked and marked with white paint. Upon marking the boring locations, Underground Services Alert (USA) North was contacted, who, in turn, notified subscribing utility companies for their underground utility locations to be marked along property boundaries and around planned boring locations.
February 20, 2018

3.0 FIELD ACTIVITIES

3.1 Exploratory Borings

The drilling program for this investigation was conducted on September 22, 2017. Six (6) exploratory borings (CS-1 through CS-6) were advanced to the 2.0-foot depth using a hand-auger. Borings CS-1 through CS-3 were positioned around existing Boring B-7. Borings CS-4 through CS-6 were positioned around existing Boring B-21. Upon completion of drilling, the borings were backfilled with soil cuttings generated during the drilling program. The locations of these borings are shown on Figure 2.

The borings were continuously sampled throughout their entire depths for the purposes of lithologic logging and selection of soil samples for laboratory analyses. Soil samples were obtained using a hand-driven, slide hammer that contained a core barrel lined with a 2-inch diameter by 6-inch long stainless-steel tube for each sample drive. Soil samples were obtained at the 0.0- and 1.5-foot depths at each boring. Upon retrieval from each sample depth interval, each liner was removed and prepared for laboratory analyses, as well as visually inspected for lithologic logging purposes. Recovered soil samples were examined for soil classification and described on detailed boring logs in general conformance with the Unified Soil Classification System (USCS). The boring logs are presented in Appendix A.

Soil samples selected for laboratory analyses were sealed, labeled, and entered onto chain of custody documentation for transportation to a California state-certified laboratory for analyses. Upon collection, the ends of the sample tubes were covered with Teflon tape and capped. The samples were labeled with the project name, project number, boring number, sample depth, and sampling date/time of sampling. After labeling, the samples were placed into a chilled ice chest containing crushed ice for transport to the analytical laboratory.

3.2 Existing Water Well Evaluation

On October 2, 2017, the existing water well (upper well) was inspected by Wilkinson Well and Pump of Half Moon Bay, California. During their inspection, it was found that the top of the well was covered with tree branches and debris and the well cover had been removed. The driller attempted to obtain a depth-to-water measurement in the well, but could not do so because of blockage present at the 13.3-foot depth. The vertical extent of the blockage below this depth could not be assessed. The driller observed a section of broken or cracked well casing at the 5-foot depth. The driller also noted that the well was constructed with steel casing and contained an inner liner consisting of polyvinyl chloride (PVC) casing. The diameter of the PVC casing was approximately 5 inches. The depths of the outer steel casing and inner PVC casing could not be determined. The total depth of the well also could not be determined.

4.0 LABORATORY ANALYSES

Soil samples obtained during the drilling program were submitted to McCampbell Analytical, Inc. of Pittsburg, California for laboratory analyses. Samples from the 0.0-foot depth were analyzed for the presence of lead using United States Environmental Protection Agency (USEPA) Method 6010. Additional samples from the 1.5-foot depth also were submitted to the analytical laboratory, and placed on hold. The samples were analyzed over a standard turnaround time (TAT). Chain-of-custody documentation and the certified analytical report are provided in Appendix B.

5.0 FINDINGS

5.1 Subsurface Conditions

The results from the drilling program show that the Site is underlain by residual soils primarily consisting of clayey and silty sands. These soils were similar to those soils encountered during AEI's previous investigation. No groundwater was encountered during drilling activities. No visual or olfactory evidence (i.e., soil discoloration, odor) of impacted soils was observed in any of the recovered soil cores during drilling operations.

5.2 Analytical Results

Soil analytical results, along with the analytical results from the previous investigation, are presented on Table 1. As previously mentioned, chain-of-custody documentation and the certified analytical report are provided in Appendix B.

Lead was detected in each of the soil samples analyzed from the 0.0-foot depth in Borings CS-1 through CS-6. Detected concentrations of lead ranged between 13 and 290 milligrams per kilogram (mg/kg). Of these concentrations, lead was found to exceed its applicable RWQCB ESLs for residential land use and any land use/any depth (for construction workers) at only one (1) location, Boring CS-3 (at a concentration of 290 mg/kg), which lies slightly north of Boring B-7.

As discussed with MidPen Housing Corporation, the Site will be redeveloped for residential land use. During redevelopment, the entire Site will be graded and the potential exposure to lead-impacted soils will be removed. The elevated concentrations of lead within the area(s) around Boring CS-3, as well as around Boring B-21, will be graded during future redevelopment. The

areas around Borings CS-1 and B-21 will be covered by community building and residential structure, respectively, as shown on the Conceptual Site Drawings presented in Appendix D.

Because of the anomalous, elevated concentration of lead detected in the surface soil sample at Boring CS-3, along with the non-detect and detected concentrations of lead in other samples analyzed during this investigation and the previous investigation, a statistical analysis for the lead concentrations in surface soils was performed consistent with the lead evaluation procedure identified under Section H of the California Department of Toxic Substances Control (DTSC), Office of Human and Ecological Risk (HERO) Note Number 4, DTSC-modified Screening Levels (DTSC-SLs), dated June 9, 2011. This statistical analysis was performed on a total of forty-four (44) soil samples that were generally obtained from the 0.0 and 1.5-foot depths (with the exception of a few samples obtained at depths as deep as 7 feet bgs), which exhibited both non-detectable and detectable concentrations of lead. The analysis was run using the USEPA's ProUCL Version 5.1 software to establish a representative Site-wide background concentration for lead and to evaluate potential human health risk.

The results of the statistical analysis show that the calculated 95% Adjusted Gamma Upper Confidence Level (UCL) for lead in surface soils at the Site is 42.04 mg/kg. This concentration is below applicable RWQCB ESLs for both residential use and any land use/any depth for construction workers. The RWQCB ESL for lead under a residential land use scenario is more conservative than the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for lead in resident soil. Furthermore, the RWQCB ESL is the same as the DTSC-recommended screening level for residential soil, as presented in Table 1 of DTSC's Hero Note No. 3. California Human Health Screening Level (CHHSL) for lead under a residential land use scenario. The USEPA RSL and CHHSL for lead under residential scenarios also were referenced in DTSC Hero Note No. 4. The results of the statistical analysis are presented in Appendix C. As previously mentioned above, the locations of Borings B-7 and B-21, where the elevated concentrations of lead were detected relative to the Conceptual Site Drawings are shown in Appendix D.

6.0 CONCLUSIONS AND RECOMMENDATIONS

AEI completed an additional subsurface investigation and water well evaluation at the Site. The purpose of the investigation was to assess the extent of lead-impacted soils that were found to exceed applicable San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for any land use/any depth (for construction workers) and residential land use. The investigation also was conducted to evaluate the potential human health risk relative to the lead concentrations detected in soils across the Site. In addition, the existing water well was inspected for future abandonment purposes. The well was found not to be properly abandoned in accordance with SMCEH regulations.

Six (6) shallow exploratory borings were advanced during this investigation. The borings were positioned around two (2) locations (Borings B-7 and B-21) where lead concentrations had been found to exceed applicable RWQCB ESLs during the previous investigation. Samples obtained from the 0.0-foot depth were analyzed for the presence of lead. Analytical results showed concentrations of lead that were below applicable RWQCB ESLs except for one (1) of the six (6) locations, where an anomalous, elevated concentration of lead was detected. Because of this outlier, a statistical analysis was performed to establish a representative Site-wide background concentration for lead,

as well as to evaluate its potential human health risk in shallow soils. The results of the statistical analysis show that the calculated 95% Adjusted Gamma UCL for lead in shallow soils is 42.04 mg/kg.

Because the statistical analytical results show that the calculated UCL for lead is below its applicable RWQCB ESLs for both residential and construction worker scenarios, it is concluded that the lead concentrations in shallow soils across the Site do not pose a significant potential human health risk relative to the planned development. Furthermore, massive grading will occur at the Site during redevelopment activities. Because of the planned grading, areas of localized elevated lead concentrations around Borings B-7 and B-21 will be mixed and further homogenized, further reducing the potential human health risks associated with shallow soils.

While no known environmental conditions have been identified, as a precautionary measure, it is recommended that a Site Management Plan (SMP) be developed to provide a framework for appropriately addressing potential environmental conditions, such as underground storage tanks (USTs) or other subsurface structures, that may be encountered during future development activities. The SMP will provide information regarding Site-specific conditions and previous investigation results, a summary of known and potential environmental conditions and contaminants of potential concern, provisions for a Site-specific health and safety plan (HASP), as well as odor, storm water, and noise control plans for worker protection, guidelines for sampling and managing impacted or potential-impacted soils that may be encountered (contingency plan), notification(s) to appropriate regulatory agency(ies), and documentation of environmental conditions encountered during Site development.

On the basis of the information, presented herein, no further investigation or remedial action is warranted at this time. It is recommended that the existing water supply well be properly destroyed in accordance with SMCEH regulations.

7.0 REFERENCES

AEI Consultants, 2015, *Limited Phase II Subsurface Investigation, Carlos Street at Sierra Street, Moss Beach, San Mateo County, California 94038*, report prepared for MidPen Housing Corporation dated February 15, 2016.

California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO), 2018, *HERO Human Health Risk Assessment (HHRA) Note Number 3: DTSC-modified Screening Levels (DTSC-SLs)*, dated January 2018.

California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO), 2011, *HERO Human Health Risk Assessment (HHRA) Note Number 3: Screening Level Human Health Risk Assessments*, dated June 9, 2011.

California Regional Water Quality Control Board, San Francisco Bay Region, 2013, *User's Guide: Derivation and Application of Environmental Screening Levels and Detailed Lookup Tables,* Interim Final 2013.

United States Environmental Protection Agency, 2016, *ProUCL: Statistical Support Software for Site Investigation and Evaluation*.

8.0 REPORT LIMITATIONS AND RELIANCE

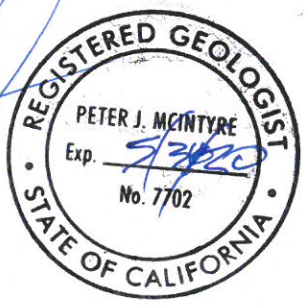
This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the subject property. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

This investigation was prepared for the sole use and benefit of MidPen Housing Corporation. All reports, both verbal and written, whether in draft or final, are for the benefit of Seagate Properties, Inc. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by MidPen Housing Corporation. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

If you have any questions or comments regarding this report, please do not hesitate to contact me at (925) 746-6000.

Sincerely,



Peter McIntyre, P.G. (7702)
Executive Vice President
AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597

FIGURES

County Review Draft

LEGEND

- Approximate Property Boundary
- Exploratory Boring

0 100 200

APPROXIMATE SCALE: 1" = 200'

N

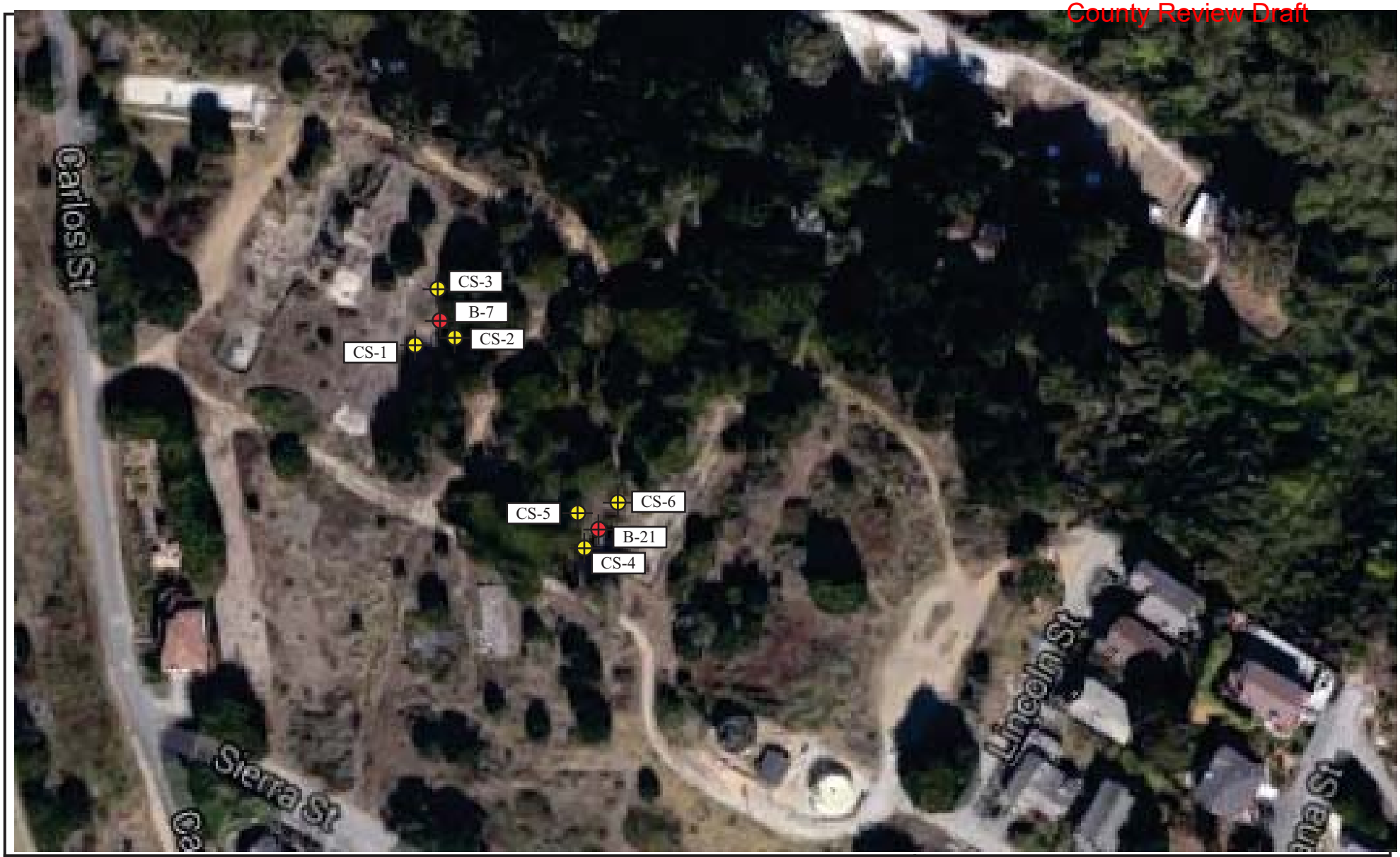
AEI CONSULTANTS
3880 S. BASCOM AVENUE, SAN JOSE, CALIFORNIA

SITE PLAN

Carlos Street at Sierra Street
Moss Beach, California

FIGURE 1
Project No. 350428

County Review Draft



LEGEND

- Soil Boring (AEI, 2017)
- Exploratory Boring (AEI, 2015)

0 50 100
APPROXIMATE SCALE (Feet)

N

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3880 S. BASCOM AVENUE, SAN JOSE, CALIFONIA

CONFIRMATION BORING LOCATIONS

Carlos Street at Sierra Street
Moss Beach, California

FIGURE 2
Project No. 350248

TABLES

TABLE 1: SOIL SAMPLE DATA SUMMARY
Carlos Street at Sierra Street, Moss Beach, California 94038

Location ID	Date	Depth (feet bgs)	Lead (mg/kg)
B-1-1.5	12/22/2015	1.5	4.5
B-3-2.0	12/23/2015	2	--
B-3-5.0	12/23/2015	5	--
B-4-0.0	12/23/2015	0	29
B-5-0.0	12/23/2015	0	54
B-6-0.0	12/23/2015	0	8.4
B-7-0.0	12/23/2015	0	**230**
B-7-1.5	12/23/2015	1.5	7
CS-1	9/22/2017	0	36
CS-2	9/22/2017	0	13
CS-3	9/22/2017	0	**290**
B-8-0.0	12/23/2015	0	23
B-9-0.0	12/22/2015	0	6.5
B-10-0.0	12/22/2015	0	45
B-11-0.0	12/22/2015	0	6.2
B-12-5.0	12/23/2015	5	--
B-13-6.0	12/23/2015	6	--
B-14-2.0	12/23/2015	2	--
B-15-0.0	12/22/2015	0	25
B-15-7.0	12/23/2015	7	--
B-16-0.0	12/22/2015	0	15
B-17-4.0	12/22/2015	4	--
B-18-0.0	12/22/2015	0	12
B-19-0.0	12/22/2015	0	7.9
B-20-0.0	12/22/2015	0	41
B-20-1.5	12/22/2015	1.5	8.1
B-21-0.0	12/22/2015	0	**88**
B-21-1.5	12/22/2015	1.5	8.8
CS-4	9/22/2017	0	30
CS-5	9/22/2017	0	38
CS-6	9/22/2017	0	53
B-22-0.0	12/22/2015	0	19
B-23-0.0	12/22/2015	0	15
B-24-0.0	12/22/2015	0	16
B-25-0.0	12/22/2015	0	8.9
B-26-0.0	12/22/2015	0	7.4
B-27-0.0	12/22/2015	0	6.3
B-28-0.0	12/22/2015	0	9.7
B-29-0.0	12/22/2015	0	8.7
B-30-0.0	12/22/2015	0	9.1
B-31-0.0	12/22/2015	0	7.8
B-32-0.0	12/22/2015	0	7.0
B-33-0.0	12/22/2015	0	39
B-34-0.0	12/22/2015	0	34

Comparison Levels	
RWQCB ESL residential	**80**
RWQCB ESL for any land use/any depth	**160**

Notes:

mg/kg	milligrams per kilogram
bgs	below ground surface
Bold	result exceeds applicable comparison value
--	not analyzed

Comparison Levels:

RWQCB ESL — San Francisco Bay Regional Water Quality Control Board Environmental Screening Level assuming direct exposure human health risk levels for residential and any land use/any depth for construction worker (RWQCB, February 2016, Table S-1)

APPENDIX A

BORING LOGS

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER CS-1

CLIENT MidPen Housing Corp.
PROJECT NAME Cypress Point
PROJECT NUMBER 350428
PROJECT LOCATION Carlos Street at Sierra Street, Moss Beach, California
DATESTARTED 9/22/17 **COMPLETED** 9/22/17
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING ---
LOGGED BY WBH **CHECKED BY** TGB
AT END OF DRILLING ---
NOTES
AFTER DRILLING --- No groundwater encountered

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0	CS-1-0.5 CS-1-1.5				CLAYEY SAND (SC), brown, loose, dry, fine to medium sand 2.0	

Bottom of borehole at 2.0 feet.

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER CS-2

CLIENT MidPen Housing Corp.
PROJECT NAME Cypress Point
PROJECT NUMBER 350428
PROJECT LOCATION Carlos Street at Sierra Street, Moss Beach, California
DATE STARTED 9/22/17 **COMPLETED** 9/22/17
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING ---
LOGGED BY WBH **CHECKED BY** TGB
AT END OF DRILLING ---
NOTES
AFTER DRILLING --- No groundwater encountered

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0	CS-2-0.5 CS-2-1.5				CLAYEY SAND (SC), brown, loose, moist, fine to medium grained sand	
2.0					Bottom of borehole at 2.0 feet.	

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER CS-3

CLIENT MidPen Housing Corp.
PROJECT NAME Cypress Point
PROJECT NUMBER 350428
PROJECT LOCATION Carlos Street at Sierra Street, Moss Beach, California
DATE STARTED 9/22/17 **COMPLETED** 9/22/17
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING ---
LOGGED BY WBH **CHECKED BY** TGB
AT END OF DRILLING ---
NOTES
AFTER DRILLING --- No groundwater encountered

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0	CS-3-0.5 CS-3-1.5				CLAYEY SAND (SC), brown, loose, moist, fine to medium grained sand, glass fragments	
					2.0	

Bottom of borehole at 2.0 feet.

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER CS-4

CLIENT MidPen Housing Corp.
PROJECT NUMBER 350428
DATE STARTED 9/22/17 **COMPLETED** 9/22/17
DRILLING CONTRACTOR
DRILLING METHOD Hand Auger
LOGGED BY WBH **CHECKED BY** TGB
NOTES

PROJECT NAME Cypress Point
PROJECT LOCATION Carlos Street at Sierra Street, Moss Beach, California
GROUND ELEVATION **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING ---
AFTER DRILLING --- No groundwater encountered

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0	CS-4-0.5 CS-4-1.5				SILTY SAND (SM), dark brown, loose, moist, fine to medium grained sand	
2.0					Bottom of borehole at 2.0 feet.	

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER CS-5

CLIENT MidPen Housing Corp.
PROJECT NAME Cypress Point
PROJECT NUMBER 350428
PROJECT LOCATION Carlos Street at Sierra Street, Moss Beach, California
DATE STARTED 9/22/17 **COMPLETED** 9/22/17
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING ---
LOGGED BY WBH **CHECKED BY** TGB
AT END OF DRILLING ---
NOTES
AFTER DRILLING --- No groundwater encountered

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0	CS-5-0.5				0.5 SILTY SAND (SM), dark brown, moist, fine to medium grained, loose	
	CS-5-1.5				2.0 SILTY SAND (SM), yellowish brown, moist, loose, fine to medium grained with cobbles	
					Bottom of borehole at 2.0 feet.	

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER CS-6

CLIENT MidPen Housing Corp.
PROJECT NAME Cypress Point
PROJECT NUMBER 350428
PROJECT LOCATION Carlos Street at Sierra Street, Moss Beach, California
DATE STARTED 9/22/17 **COMPLETED** 9/22/17
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING ---
LOGGED BY WBH **CHECKED BY** TGB
AT END OF DRILLING ---
NOTES
AFTER DRILLING --- No groundwater encountered

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0	CS-6-0.5 CS-6-1.5				SILTY SAND (SM), dark brown, loose, moist, fine to medium grained sand	
2.0					Bottom of borehole at 2.0 feet.	

APPENDIX B

CHAIN-OF-CUSTODY AND CERTIFIED ANALYTICAL REPORT

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1709A05

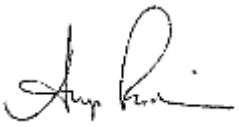
Report Created for: AEI Consultants

2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: William Hicks
Project P.O.: 142989
Project Name: 350428

Project Received: 09/22/2017

Analytical Report reviewed & approved for release on 09/28/2017 by:



Angela Rydelius,
Laboratory Manager

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
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"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 350428
WorkOrder: 1709A05

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Quality Control Qualifiers

F13	Indigenous sample results too high for a representative matrix spike analysis.

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1709A05
Date Received:	9/22/17 17:30	**Extraction Method:**	SW3050B
Date Prepared:	9/25/17	**Analytical Method:**	SW6020
Project:	350428	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CS-1-5	1709A05-001A	Soil	09/22/2017 08:34	ICP-MS2 008SMPL.D	146035

Analytes	Result	RL	DF	Date Analyzed
Lead	**36**	0.50	1	09/26/2017 22:30

Surrogates	REC (%)	Limits	
Terbium	110	70-130	09/26/2017 22:30

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CS-2-5	1709A05-003A	Soil	09/22/2017 09:06	ICP-MS2 009SMPL.D	146035

Analytes	Result	RL	DF	Date Analyzed
Lead	**13**	0.50	1	09/26/2017 22:36

Surrogates	REC (%)	Limits	
Terbium	100	70-130	09/26/2017 22:36

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CS-3-5	1709A05-005A	Soil	09/22/2017 09:56	ICP-MS2 010SMPL.D	146035

Analytes	Result	RL	DF	Date Analyzed
Lead	**290**	0.50	1	09/26/2017 22:42

Surrogates	REC (%)	Limits	
Terbium	103	70-130	09/26/2017 22:42

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CS-4-5	1709A05-007A	Soil	09/22/2017 10:54	ICP-MS2 011SMPL.D	146035

Analytes	Result	RL	DF	Date Analyzed
Lead	**30**	0.50	1	09/26/2017 22:48

Surrogates	REC (%)	Limits	
Terbium	100	70-130	09/26/2017 22:48

Analyst(s): ND

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1709A05
Date Received:	9/22/17 17:30	**Extraction Method:**	SW3050B
Date Prepared:	9/25/17	**Analytical Method:**	SW6020
Project:	350428	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CS-5-5	1709A05-009A	Soil	09/22/2017 11:14	ICP-MS2 012SMPL.D	146035

Analytes	Result	RL	DF	Date Analyzed
Lead	**38**	0.50	1	09/26/2017 22:54

Surrogates	REC (%)	Limits	
Terbium	104	70-130	09/26/2017 22:54

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CS-6-5	1709A05-011A	Soil	09/22/2017 11:47	ICP-MS2 013SMPL.D	146035

Analytes	Result	RL	DF	Date Analyzed
Lead	**53**	0.50	1	09/26/2017 23:00

Surrogates	REC (%)	Limits	
Terbium	101	70-130	09/26/2017 23:00

Analyst(s): ND

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1709A05
Date Prepared:	9/25/17	**BatchID:**	146035
Date Analyzed:	9/26/17	**Extraction Method:**	SW3050B
Instrument:	ICP-MS3	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/Kg
Project:	350428	**Sample ID:**	MB/LCS-146035 1709A04-031AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	45.6	0.50	50	-	91	75-125
Surrogate Recovery							
Terbium	473.2	469		500	95	94	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	294	453	50	401.3	0,F13	103	75-125	NA	20
Surrogate Recovery									
Terbium	487	458	500		97	92	70-130	6.05	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	387	401.3	3.56	20

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1709A05 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
William Hicks
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 944-2895

Email: whix@aeiconsultants.com
cc/3rd Party: tbodkin@aeiconsultants.com;
PO: 142989
ProjectNo: 350428

Bill to:
Accounts Payable
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.com

Requested TAT: 5 days;

Date Received: **09/22/2017**
Date Logged: **09/25/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1709A05-001	CS-1-5	Soil	9/22/2017 08:34	☐	A											
1709A05-003	CS-2-5	Soil	9/22/2017 09:06	☐	A											
1709A05-005	CS-3-5	Soil	9/22/2017 09:56	☐	A											
1709A05-007	CS-4-5	Soil	9/22/2017 10:54	☐	A											
1709A05-009	CS-5-5	Soil	9/22/2017 11:14	☐	A											
1709A05-011	CS-6-5	Soil	9/22/2017 11:47	☐	A											

Test Legend:

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Jena Alfaro

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS **Project:** 350428 **Work Order:** 1709A05
Client Contact: William Hicks **QC Level:** LEVEL 2
Contact's Email: whix@aeiconsultants.com **Comments:** **Date Logged:** 9/25/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1709A05-001A	CS-1-5	Soil	SW6020 (Lead)	1	Stainless Steel tube 2"x6"	☐	9/22/2017 8:34	5 days		☐	
1709A05-002A	CS-1-1.5	Soil		1	Stainless Steel tube 2"x6"	☐	9/22/2017 8:55			☑	
1709A05-003A	CS-2-5	Soil	SW6020 (Lead)	1	Stainless Steel tube 2"x6"	☐	9/22/2017 9:06	5 days		☐	
1709A05-004A	CS-2-1.5	Soil		1	Stainless Steel tube 2"x6"	☐	9/22/2017 9:43			☑	
1709A05-005A	CS-3-5	Soil	SW6020 (Lead)	1	Stainless Steel tube 2"x6"	☐	9/22/2017 9:56	5 days		☐	
1709A05-006A	CS-3-1.5	Soil		1	Stainless Steel tube 2"x6"	☐	9/22/2017 10:21			☑	
1709A05-007A	CS-4-5	Soil	SW6020 (Lead)	1	Stainless Steel tube 2"x6"	☐	9/22/2017 10:54	5 days		☐	
1709A05-008A	CS-4-1.5	Soil		1	Stainless Steel tube 2"x6"	☐	9/22/2017 11:06			☑	
1709A05-009A	CS-5-5	Soil	SW6020 (Lead)	1	Stainless Steel tube 2"x6"	☐	9/22/2017 11:14	5 days		☐	
1709A05-010A	CS-5-1.5	Soil		1	Stainless Steel tube 2"x6"	☐	9/22/2017 11:39			☑	
1709A05-011A	CS-6-5	Soil	SW6020 (Lead)	1	Stainless Steel tube 2"x6"	☐	9/22/2017 11:47	5 days		☐	
1709A05-012A	CS-6-1.5	Soil		1	Stainless Steel tube 2"x6"	☐	9/22/2017 12:03			☑	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 1109405

5

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF ● | EDD | Write On (DW) | EQuIS

Report To: AEI Consultants | Bill To: AEI Consultants
Company: AEI Consultants
Email: whix@aeiconsultants.com
Alt Email: tbodkin@aeiconsultants.com | Tele: 925-746-6050
Project Name/#: 350428
Project Location: Moss Beach | PO #142989
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: Lead by 6010	Analysis Requested: Hold
CS-1-5	9/22	0834	1	Soil	ICE	X	
CS-1-1.5		0855					X
CS-2-5		0906				X	
CS-2-1.5		0943					X
CS-3-5		0956				X	
CS-3-1.5		1021					X
CS-4-5		1054				X	
CS-4-1.5		1106					X
CS-5-5		1114				X	
CS-5-1.5		1139					X

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	9/22	1730		9/22	1730

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 6.0 °C Initials

Page 1 of 2

General COC

MAI Work Order # _____

5

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush [ ] 2 Day Rush [ ] 3 Day Rush [ ] STD [●] Quote # [ ]
J-Flag / MDL [ ] ESL [ ] Cleanup Approved [ ] Bottle Order # [ ]
Delivery Format: GeoTracker EDF [ ] PDF [●] EDD [ ] Write On (DW) [ ] EQuIS [ ]

Report To: AEI Consultants Bill To: AEI Consultants
Company: AEI Consultants
Email: whix@aeiconsultants.com
Alt Email: tbodkin@aeiconsultants.com Tele: 925-746-6050
Project Name/#: 350428
Project Location: Moss Beach PO #142989
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: Lead by 6020 or 6010	Analysis Requested: Hold
CS-6-5	9/22	1147	1	Soil	7 ICE	X	
CS-6-1.5	"	1203	1	"	"		X

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	9/22	1730		9/24/22	1730

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

Page 2 of 2

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Sample Receipt Checklist

Client Name:	**AEI Consultants**	Date and Time Received	**9/22/2017 17:30**
Project Name:	**350428**	Date Logged:	**9/25/2017**
		Received by:	Kena Ponce
WorkOrder №:	**1709A05** Matrix: Soil	Logged by:	Jena Alfaro
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Sample/Temp Blank temperature	Temp: 6°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA	☑

Comments:

APPENDIX C

STATISTICAL ANALYSIS

TABLE 1: SOIL SAMPLE DATA SUMMARY 95% UCL CALCULATION

Carlos Street at Sierra Street, Moss Beach, California 94038

November 2-2017

Location ID	Sample Date	Depth (feet bgs)	Lead (mg/kg)
B-1-1.5	12/22/2015	1.5	4.5
B-3-2.0	12/23/2015	2	0.5
B-3-5.0	12/23/2015	5	0.5
B-4-0.0	12/23/2015	0	29
B-5-0.0	12/23/2015	0	**54**
B-6-0.0	12/23/2015	0	8.4
B-7-0.0	12/23/2015	0	**230**
B-7-1.5	12/23/2015	1.5	7
CS-1	9/22/2017	0	36
CS-2	9/22/2017	0	13
CS-3	9/22/2017	0	**290**
B-8-0.0	12/23/2015	0	23
B-9-0.0	12/22/2015	0	6.5
B-10-0.0	12/22/2015	0	45
B-11-0.0	12/22/2015	0	6.2
B-12-5.0	12/23/2015	5	0.5
B-13-6.0	12/23/2015	6	0.5
B-14-2.0	12/23/2015	2	0.5
B-15-0.0	12/22/2015	0	25
B-15-7.0	12/23/2015	7	0.5
B-16-0.0	12/22/2015	0	15
B-17-4.0	12/22/2015	4	0.5
B-18-0.0	12/22/2015	0	12
B-19-0.0	12/22/2015	0	7.9
B-20-0.0	12/22/2015	0	41
B-20-1.5	12/22/2015	1.5	8.1
B-21-0.0	12/22/2015	0	**88**
B-21-1.5	12/22/2015	1.5	8.8
CS-4	9/22/2017	0	30
CS-5	9/22/2017	0	38
CS-6	9/22/2017	0	**53**
B-22-0.0	12/22/2015	0	19
B-23-0.0	12/22/2015	0	15
B-24-0.0	12/22/2015	0	16
B-25-0.0	12/22/2015	0	8.9
B-26-0.0	12/22/2015	0	7.4

TABLE 1: SOIL SAMPLE DATA SUMMARY 95% UCL CALCULATION

Carlos Street at Sierra Street, Moss Beach, California 94038

November 2-2017

Location ID	Sample Date	Depth (feet bgs)	Lead (mg/kg)
B-27-0.0	12/22/2015	0	6.3
B-28-0.0	12/22/2015	0	9.7
B-29-0.0	12/22/2015	0	8.7
B-30-0.0	12/22/2015	0	9.1
B-31-0.0	12/22/2015	0	7.8
B-32-0.0	12/22/2015	0	7.0
B-33-0.0	12/22/2015	0	39
B-34-0.0	12/22/2015	0	34
Comparison Levels			
San Francisco Bay Regional Water Quality Control Board Environmental Screening Level			
(RWQCB ESL) Residential Use			80
RWQCB ESL for any Land Use/any Depth			160
Total Threshold Limit Concentration (TTLC)			1,000
Soluble Threshold Limit Concentration (STLC)			5
Statistical Analysis:			
Lead Laboratory Reporting Limit (mg/kg) =			0.5
Total Number of Observations -			44
Sample Minimum =			0.5
Sample maximum =			290
Sample Mean =			28.88
Standard Deiation (SD) =			54.59
Coefficient of Variation (CV) =			1.89
EPA Pro UCL Version 5.1 Adjusted Gamma UCL (mg/kg) =			**42.04**

95% UCL Calculation for Lead in Soil

County Review Draft

Carlos Street at Sierra Street, Moss Beach, California 94038

November 2, 2017

User Selected Options	
Date/Time of Computation	ProUCL 5.111/2/2017 9:20:27 AM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead Soil Results (mg/kg)

General Statistics

Total Number of Observations	44	Number of Distinct Observations	36
		Number of Missing Observations	0
Minimum	0.5	Mean	28.88
Maximum	290	Median	9.4
SD	54.59	Std. Error of Mean	8.229
Coefficient of Variation	1.89	Skewness	3.872

Normal GOF Test

Shapiro Wilk Test Statistic	0.493	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.944	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.302	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.132	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	42.72	95% Adjusted-CLT UCL (Chen-1995)	47.55
		95% Modified-t UCL (Johnson-1978)	43.52

Gamma GOF Test

A-D Test Statistic	1.39	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.804	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.132	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.14	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.595	k star (bias corrected MLE)	0.569
Theta hat (MLE)	48.56	Theta star (bias corrected MLE)	50.73
nu hat (MLE)	52.34	nu star (bias corrected)	50.1
MLE Mean (bias corrected)	28.88	MLE Sd (bias corrected)	38.28
		Approximate Chi Square Value (0.05)	34.85
Adjusted Level of Significance	0.0445	Adjusted Chi Square Value	34.42

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	41.52	95% Adjusted Gamma UCL (use when n<50)	42.04

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.9	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.944	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.197	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.132	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.693	Mean of logged Data	2.323
Maximum of Logged Data	5.67	SD of logged Data	1.615

Assuming Lognormal Distribution

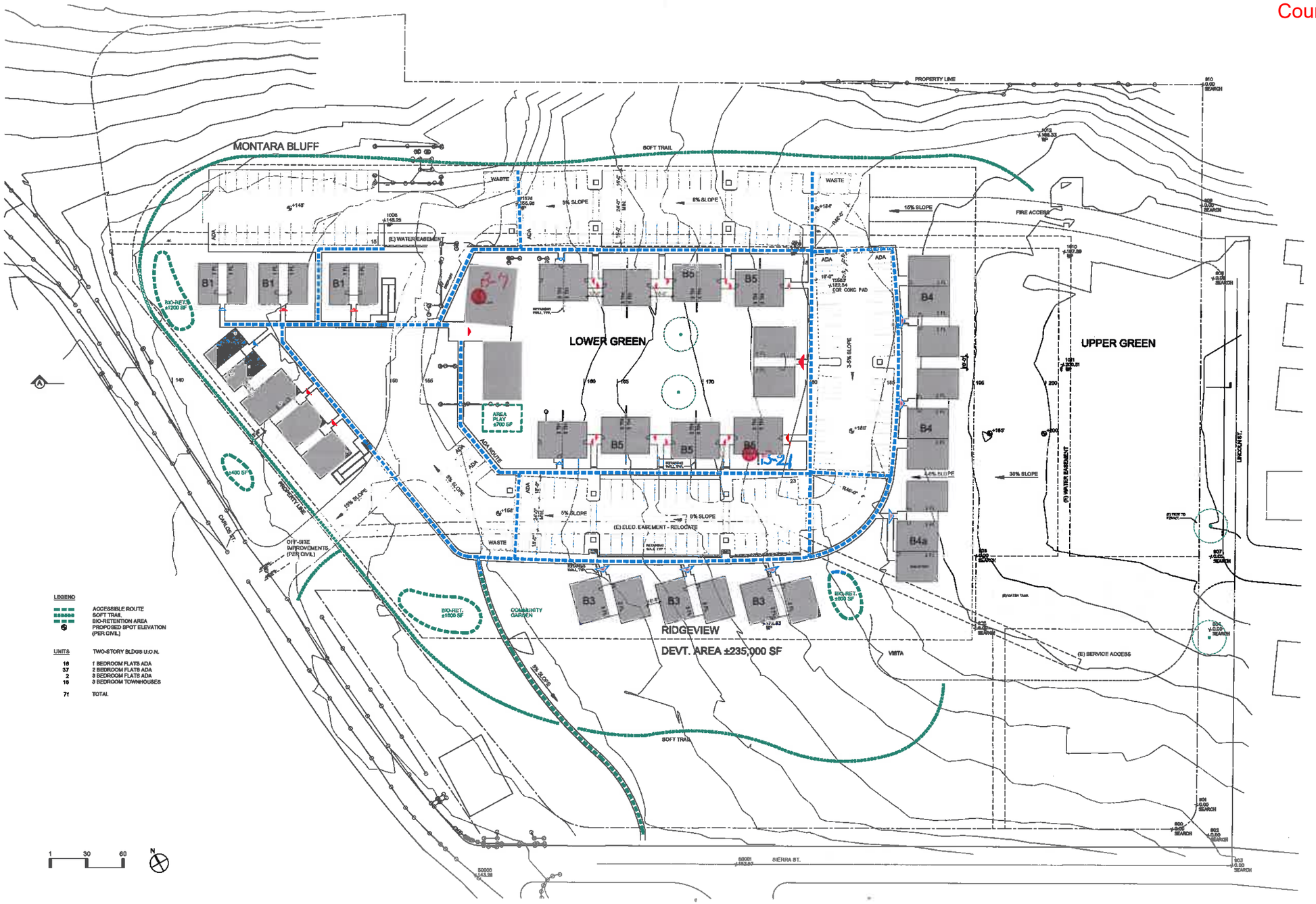
95% H-UCL	81.38	90% Chebyshev (MVUE) UCL	69.93
95% Chebyshev (MVUE) UCL	85.62	97.5% Chebyshev (MVUE) UCL	107.4
99% Chebyshev (MVUE) UCL	150.2		

	A	B	C	D	E	F	G	H	I	J	K	L
65	**Nonparametric Distribution Free UCL Statistics**										County Review Draft	
66	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
67												
68	**Nonparametric Distribution Free UCLs**											
69	95% CLT UCL					42.42	95% Jackknife UCL					42.72
70	95% Standard Bootstrap UCL					42.1	95% Bootstrap-t UCL					68.07
71	95% Hall's Bootstrap UCL					109.1	95% Percentile Bootstrap UCL					43.77
72	95% BCA Bootstrap UCL					51.22						
73	90% Chebyshev(Mean, Sd) UCL					53.57	95% Chebyshev(Mean, Sd) UCL					64.75
74	97.5% Chebyshev(Mean, Sd) UCL					80.27	99% Chebyshev(Mean, Sd) UCL					110.8
75												
76	**Suggested UCL to Use**											
77	95% Adjusted Gamma UCL					42.04						
78												
79	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
80	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
81												
82	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
83	Recommendations are based upon data size, data distribution, and skewness.											
84	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
85	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											

APPENDIX D

CONCEPTUAL SITE DRAWINGS

County Review Draft



LEGEND

- ACCESSIBLE ROUTE
- SOFT TRAIL
- BIO-RETENTION AREA
- PROPOSED SPOT ELEVATION (PER CIVIL)

UNITS	TWO-STORY BLDGS U.O.N.
16	1 BEDROOM FLATS ADA
37	2 BEDROOM FLATS ADA
2	3 BEDROOM FLATS ADA
16	3 BEDROOM TOWNHOUSES
71	TOTAL

1 30 60 N

MidPen HOUSING

CYPRESS POINT AFFORDABLE HOUSING

Moss Beach CA

PRELIMINARY SITE PLAN

PYATOK
1611 TELEGRAPH AVE. SUITE 200
OAKLAND, CA 94612
p 510.465.7010 | f 510.465.8575
www.pyatok.com

01

Project #: 1603

Date: 06.28.17

KEY NOTES

1. CYPRESS POINT ENTRY DRIVE
2. BROAD CANOPY ENTRY TREES
3. BIO-RETENTION AREA
4. PLAY STRUCTURE (AGES 2-5 YEARS)
7. SLOPING PATH THROUGH CENTRAL GREEN
8. SLOPING LAWN
9. PLANTING - TREES, SHRUBS, AND GRASSES
10. TRELLIS, SEATING, AND BBQ AREA
11. WASTE ENCLOSURE (3 TOTAL)
12. OVERLOOK WITH SEATING
13. EXISTING GRAVEL ACCESS ROAD
14. EXISTING WATER TANKS
15. COMMUNITY GARDEN
16. PARKING LOT
17. ACCESSIBLE CROSSING
18. PLANTED SLOPE
19. TRAIL FOOT PATH AROUND PERIMETER OF SITE
20. PATH TO SIERRA STREET
21. EXISTING TREES
22. EMERGENCY VEHICLE ROUTE

0 15' 30' 60'
Scale: 1" = 30' - 0"

MidPen HOUSING | PYATOK

CYPRESS POINT AFFORDABLE HOUSING

MOSS BEACH, CA

CONCEPTUAL LANDSCAPE PLAN

JUNE 23, 2017

JONES & JANECKI & ASSOCIATES