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December 8, 2017

Mr. Robert Schultz  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

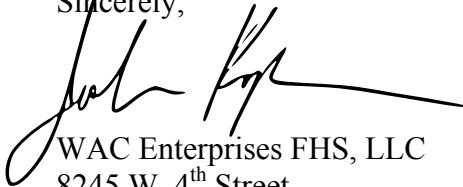
**Subject: Submittal Acknowledgement Statement  
Quarterly Vapor Mitigation and Site Remediation  
Status Report: Third Quarter 2017**  
Former Young's Cleaners  
10700 MacArthur Boulevard  
Oakland, California 94605  
AEI Project No. 365948  
Toxics Case No. RO0002580

Dear Mr. Schultz:

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the State Water Resources Control Board's Geotracker website.

If you have any questions or need additional information, please do not hesitate to call the undersigned at (310) 270-8339, or Mr. Peter McIntyre at AEI Consultants, (925) 746-6004.

Sincerely,



WAC Enterprises FHS, LLC  
8245 W. 4<sup>th</sup> Street,  
Los Angeles, CA 90048

cc: Mr. Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597



# AEI Consultants

December 8, 2017

Mr. Robert Schultz  
Alameda County Department of Environmental Health  
1131 Harbor Parkway  
Alameda, California 94502

**Re: Quarterly Vapor Mitigation and Site Remediation  
Status Report: Third Quarter 2017,**  
10700 MacArthur Boulevard, Oakland, California  
ACHCS Case No. RO0002850  
AEI Project No. 365948

Dear Mr. Schultz:

On behalf of WAC Enterprises FHS, LLC (WAC), AEI Consultants (AEI) is pleased to provide you with this report describing the operation and maintenance of the sub-slab depressurization (SSD) system through the third quarter of 2017 (January through September 2017, the "reporting period"), operating at 10700 MacArthur Boulevard in Oakland, California ("the Site"). The SSD system that is operating at the Site was designed to create a negative pressure beneath the building, where elevated tetrachloroethylene (PCE) concentrations in soil vapor are present, to reduce the potential for vapor intrusion of PCE-affected soil vapor. Figure 1 presents the Site location and vicinity. Figure 2 presents the overall Site plan and Figure 3 provides details on the SSD system layout. Based upon the observations made during the reporting period, the SSD system continues to operate as designed at the Site.

As described in AEI's *SVET System Evaluation* report dated August 18, 2017, the soil vapor extraction portion of the system has been inoperable during the reporting period and is excluded from this report. A pilot study evaluation is planned for January 2018 to assess and design replacement or expansion options.

### **SSD System Description**

The SSD system includes six two-foot by two-foot by two-foot extraction sumps (ES-1 through ES-6). The location of the extraction sumps and conveyance piping is depicted on Figure 3. Each sump is connected to the vacuum blower through sub-slab PVC piping. This vapor stream is routed under negative pressure through a liquid knock-out drum followed by two 200-pound granular activated carbon (GACs) filters, connected in series, before reaching a dedicated regenerative vacuum blower. Effluent from the blower is routed into a manifold which combines the SSD and the soil vapor extraction and treatment system (SVET) vapor streams into a single vapor stream which is then routed under positive pressure through two 200-pound GAC filters, connected in series, for secondary treatment before being discharged to the atmosphere at the

**Quarterly Vapor Mitigation and Site Remediation  
Status Report: Third Quarter 2017**  
10700 MacArthur Boulevard, Oakland, California

roof level under a Permit to Operate (Plant No. 20686) issued by the Bay Area Air Quality Management District (BAAQMD).

**Operation and Maintenance**

During the reporting period, the SSD system was inspected on a monthly basis and maintenance (O&M) was performed, including:

- Collecting of SSD system operational parameters.
- Collecting SSD influent, middle, and effluent photoionization detector (PID) measurements (Table 3) in accordance with the Permit to Operate.
- Collecting SSD influent vapor samples monthly for analysis.
- Collect vacuum influence measurements from existing monitoring points to assess the effectiveness of the SSD system at creating a negative pressure gradient beneath the building at the Site.

Table 1 presents a summary of the SSD sample results. Tables 2 and 3 present the operation summary of the SSD system and PID readings collected from the sample ports. It should be noted that "combined" data is used for evaluation of compliance with the BAAQMD permit.

Through the third quarter of 2017, the SSD system operated between 89 and 126 standard cubic feet per minute at approximately 11 to 12 inches of water column. SSD system influent analytical data ranged between 700 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and 7,000  $\mu\text{g}/\text{m}^3$  for total volatile organic compounds (VOCs). As shown in Table 2, approximately 893 pounds of VOCs have been removed to-date by the SSD system.

Induced vacuum readings measured using the sample probes are included on Table 4. Based on this data, it appears that a vacuum of greater than the target vacuum of 0.016 inches of water<sup>1</sup> was consistently observed beneath the former dry cleaner, where the most elevated concentrations of PCE has been observed in soil vapor samples collected. Based on this data, the SSD system continues to be effective at depressurizing the vadose zone immediately below the building slab within the target area beneath the former dry cleaner.

**Recommendations**

Based upon the data collected, continued operation of the SSD system is recommended to continue mitigating the potential for vapor intrusion at the Site. Continued monthly operation and maintenance will continue as required. As noted above, a pilot test is planned for January 2018 to assess restarting and/or modifications to the SVET system at the Site.

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<sup>1</sup> EPA's Engineering Issue: Indoor Air Vapor Intrusion Mitigation Approaches guidance document dated October 2008.

Quarterly Vapor Mitigation and Site Remediation  
Status Report: Third Quarter 2017  
10700 MacArthur Boulevard, Oakland, California


**Closing**

AEI appreciates the opportunity to present this report to the Alameda County Department of Environmental Health and trust that it meets with your approval. If there are any questions regarding our investigation, please do not hesitate to contact the undersigned at (925) 746-6000.

Sincerely,  
**AEI Consultants**



Jeremy Smith  
Senior Project Manager



Trent A. Weise, P.E.  
Principal Engineer



**Figures**

- Figure 1 Site Location Map
- Figure 2 Site Map
- Figure 3 Excavation and Engineering Control Systems

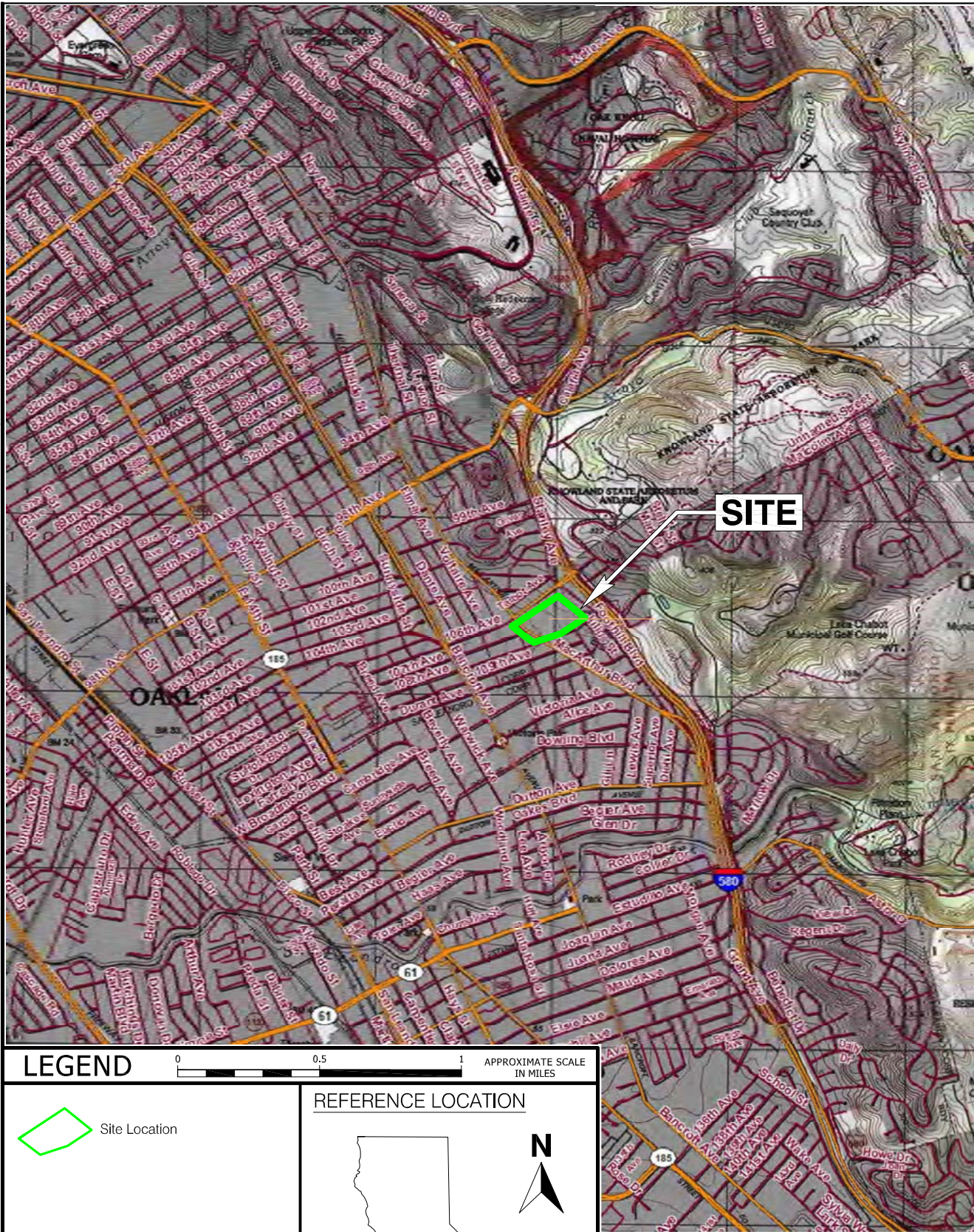
**Tables**

- Table 1 Summary of SSD System Sample Results
- Table 2 SSD Operational Summary
- Table 3 SSD Photoionization Detector Measurements
- Table 4 Vacuum Measurements Summary

**Appendices**

- Appendix A Laboratory Analytical Reports

## Figures



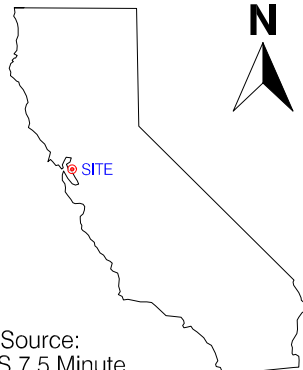
**SITE**

**LEGEND**



 Site Location

**REFERENCE LOCATION**



Map Source:  
USGS 7.5 Minute  
Topographic Quadrangle Map,  
San Leandro, CA - 1993

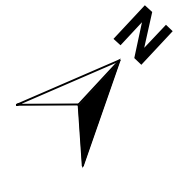
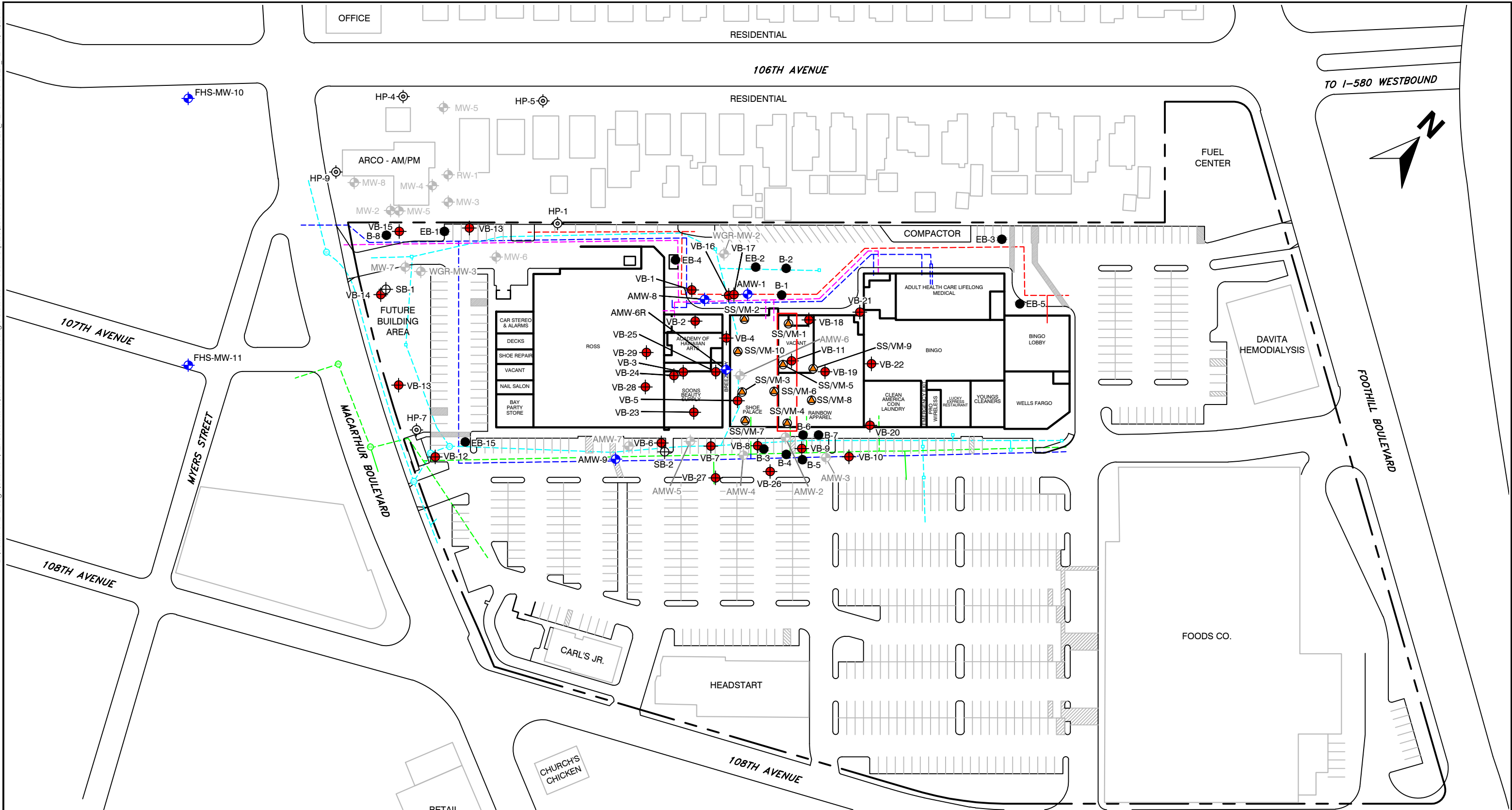
**AEI Consultants**  
2500 Camino Diablo, Walnut Creek, California

**SITE LOCATION MAP**

Foothill Square  
10700 MacArthur Boulevard  
Oakland, California

**FIGURE 1**  
Project No. 365948

D:\Votaw CAD Design\CadFiles\AEI Consultants\365948 Former Young's Cleaners - Foothill Square\2017-08-18 SVET - PO 140323 - AEI-365948-SVET - F2 - 08/18/2017



**LEGEND**

- AMW-1 Groundwater Monitoring Well
- MW-5 Abandoned Groundwater Monitoring Well
- SS/VM-1 Twinned Permanent Soil Vapor/Sub-Slab Vapor Probe
- VB-1 Temporary Soil Vapor Probes (AEI, 2006-2008)
- SB-1 Soil Boring (AEI, 2006)
- HP-1 Soil Boring (Kaldveer, 1988)
- EB-1 Soil Boring (Augeas, 1994)
- B-1 CPT Boring/Hydropunch Sample (PES, 1997)
- Former Dry Cleaner Location

- Approximate Property Boundary
- Storm Drain Line
- Sanitary Sewer Line
- Underground Electrical Line
- Natural Gas Line
- Water Line



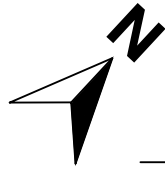
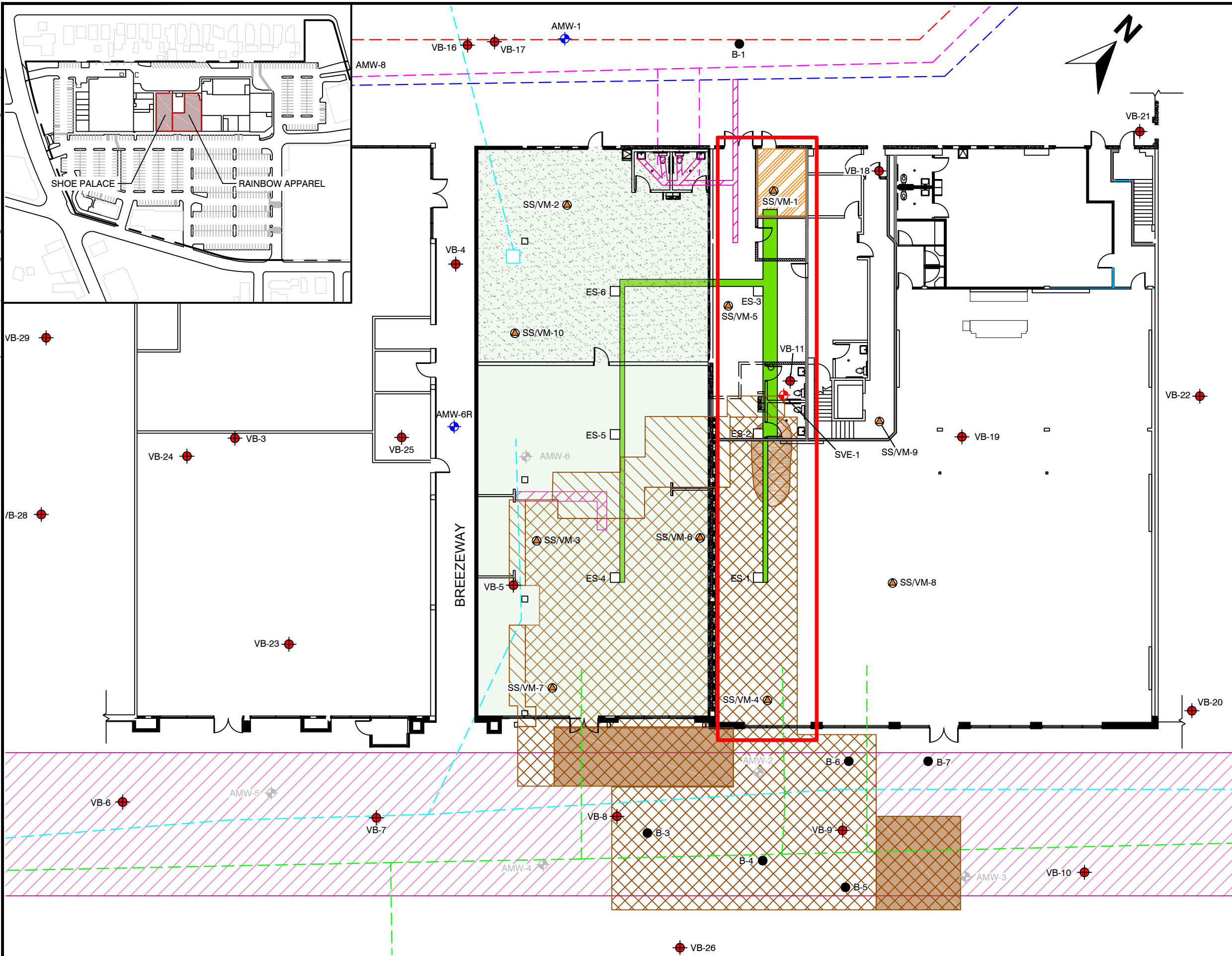
**AEI Consultants**  
2500 Camino Diablo, Walnut Creek, California

**SITE PLAN**

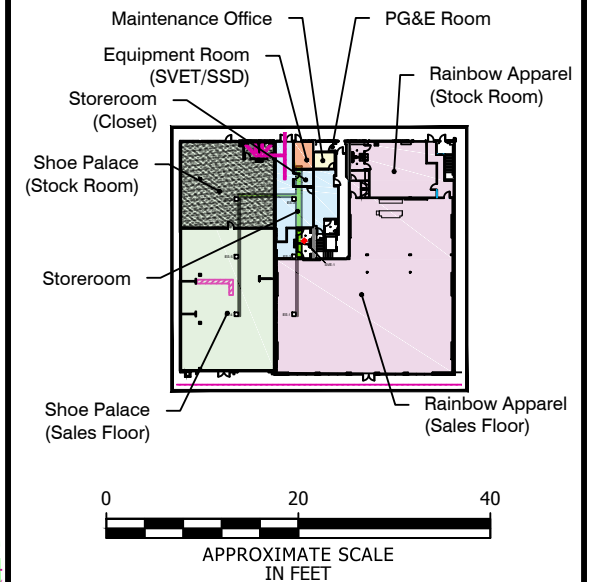
Foothill Square  
10700 MacArthur Boulevard  
Oakland, California

**FIGURE 2**  
Project No. 365948

C:\Users\lsanders\Desktop\Foothill Figures\Fig 5. Remedial Excav & Current Eng Control Systems - 06/19/2017



- LEGEND**
- B-1 ● Soil Boring (Augeas, 1994)
  - AMW-1 ⊕ Groundwater Monitoring Well
  - AMW-2 ⊕ Abandoned Groundwater Monitoring Well
  - VB-1 ⊕ Soil Vapor Sample
  - SS/VM-1 ⊕ Twinned Permanent Soil Vapor / Sub-Slab Vapor Probe
  - SVE-1 ⊕ Soil Vapor Extraction Well
  - ES-1 □ Sub-Slab Depressurization Sump (2' bgs)
  - Storm Drain Line
  - Sanitary Sewer Line
  - Underground Electrical Line
  - Natural Gas Line
  - Water Line
  - Equipment Room (SVET & SDS)
  - Extents of Vapor Intrusion Mitigation Barrier
  - Extent of Vapor Intrusion Mitigation Barrier with Aggregate Finish
  - Tenant Improvements Trenching (Typ. 18" bgs)
  - SVE/SSD Trenching (Typ. 18" bgs)
  - Excavation Limits, 5-7 Feet bgs
  - Excavation Limits, 8-13 Feet bgs
  - Excavation Limits, 14-18 Feet bgs



**AEI Consultants**  
2500 Camino Diablo  
Walnut Creek, California

Excavations and Engineering  
Control Systems

Foothill Square  
10700 MacArthur Boulevard  
Oakland, California

FIGURE 3  
Project No. 365948



## Tables

**TABLE 1**  
**SUMMARY OF SUB-SLAB DEPRESSURIZATION SYSTEM SAMPLE RESULTS**  
**Former Young's Cleaners**  
**10700 MacArthur Boulevard, Oakland, California**

Sample Date	Sample ID	PCE (µg/m <sup>3</sup> )	TCE (µg/m <sup>3</sup> )	cis-1,2-DCE (µg/m <sup>3</sup> )	trans-1,2 DCE (µg/m <sup>3</sup> )	Vinyl Chloride (µg/m <sup>3</sup> )	Total VOCs (µg/m <sup>3</sup> )
1/13/2014	SSD INF	18,000	3,600	2,200	340	<250	24,000
1/15/2014	SSD INF	17,000	2,500	1,500	<250	<250	21,000
3/5/2014	SSD INF	12,000	2,200	1,300	<250	<250	16,000
3/20/2014	SSD INF	5,800	730	330	<250	<250	7,000
4/16/2014	SSD INF	2,500	510	270	<250	<250	3,000
5/2/2014	SSD INF	1,800	320	<250	<250	<250	2,100
5/23/2014	SSD INF	2,000	270	<250	<250	<250	2,300
7/3/2014	SSD INF	6,500	600	<250	<250	<250	7,000
8/11/2014	SSD INF	6,000	700	280	<250	<250	7,000
9/12/2014	SSD INF	6,100	510	<250	<250	<250	7,000
10/14/2014	SSD INF	5,400	510	<250	<250	<250	6,000
11/20/2014	SSD INF	22,000	1,600	710	<500	<500	24,000
12/31/2014	SSD INF	1,000	<250	<250	<250	<250	1,000
1/14/2015	SSD INF	780	<250	<250	<250	<250	800
2/12/2015	SSD INF	1,600	<250	300	<250	<250	1,900
3/27/2015	SSD INF	790	300	250	<250	<250	1,300
4/21/2015	SSD INF	22,000	1,000	<1,000	<1,000	<1,000	23,000
5/7/2015	SSD INF	26,000	1,100	<250	<250	<250	27,000
6/18/2015	SSD INF	4,500	340	270	<250	<250	5,000
7/8/2015	SSD INF	870	<250	<250	<250	<250	900
8/27/2015	SSD INF	2,000	480	360	<250	<250	2,800
10/26/2015	SSD INF	<250	<250	<250	<250	<250	0
11/24/2015	SSD INF	<140	<110	<81	<81	<52	0
12/30/2015	SSD INF	290	<250	<250	<250	<250	290
1/27/2016	SSD INF	890	270	<250	<250	<250	1,200
2/18/2016	SSD INF	1,100	340	300	<250	<250	1,700
3/29/2016	SSD INF	2,700	390	290	<250	<250	3,000
4/26/2016	SSD INF	1,000	260	250	<250	<250	1,500
5/26/2016	SSD INF	1,500	370	300	<250	<250	2,200
6/29/2016	SSD INF	2,900	570	400	<250	<250	4,000
7/27/2016	SSD INF	1,900	420	330	<250	<250	2,700
8/23/2016	SSD INF	470	<250	<250	<250	<250	500
9/30/2016	SSD INF	3,700	580	370	<250	<250	5,000
10/19/2016	SSD INF	3,400	640	350	<250	<250	4,000
11/29/2016	SSD INF	2,600	500	270	<250	<250	3,000
12/30/2016	SSD INF	7,900	1,200	750	<250	<250	10,000
1/31/2017	SSD INF	5,800	980	470	<250	<250	7,000
2/23/2017	SSD INF	3,100	450	270	<250	<250	4,000
3/31/2017	SSD INF	1,700	310	<250	<250	<250	2,000
5/31/2017	SSD INF	2,000	370	<250	<250	<250	2,400
6/28/2017	SSD INF	670	<250	<250	<250	<250	700
7/28/2017	SSD INF	2,100	430	<250	<250	<250	2,500
8/28/2017	SSD INF	2,400	410	<250	<250	<250	2,800
9/29/2017	SSD INF	2,300	420	<250	<250	<250	2,700

**Notes / Abbreviations:**

µg/m<sup>3</sup> = micrograms per cubic meter

bgs = below ground surface

<100 = indicates that the analyte was not detected at or above the laboratory reporting limit shown

PCE = tetrachloroethylene

TCE = trichloroethylene

cis-1,2-DCE = cis-1,2-dichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene

**TABLE 2  
SSD OPERATIONAL SUMMARY  
Former Young's Cleaners  
10700 MacArthur Boulevard, Oakland, California**

Date	Time	System Status (ON/OFF)	Hour Meter	Inlet Temp (°F)	VFD Setting (Hz)	System Vacuum (in-H2O)	Total Velocity (fpm)	**Total Flow (ACFM)	Total Flow (SCFM)	Outlet Temp (°F)	Total Influent VOCs (µg/m <sup>3</sup> )	Mass Removal Rate (lbs/day)	Mass Removal Per Period (lbs)	Cumulative Mass Removed (lbs)
01/13/14	10:00	Startup	0.4	60	50	20	5000	114	109	80	24,000	0.24	0.0	0.0
01/14/14	8:54	ON	22.9	60	50	20	5000	114	109	86	21,000	0.21	0.20	0.2
01/15/14	12:00	ON	50.0	66	50	20	5000	114	108	90		0.20	0.42	0.6
01/16/14	8:00	ON	70.0	62	50	20	5000	114	108	86		0.20	0.60	1.2
01/17/14	9:10	ON	95.0	62	50	20	5000	114	108	86		0.20	0.81	2.0
03/03/14	10:00	Startup	96.1	64	50	18	5000	114	109	72		0.21	0.82	2.8
03/04/14	14:00	ON	124.1	66	50	18	5000	114	108	92		0.20	1.1	3.9
03/05/14	8:30	ON	143.2	68	50	18	5000	114	108	94	16,000	0.16	0.93	4.8
03/06/14	11:30	ON	170.2	68	50	18	5000	114	108	102		0.16	1.1	5.9
03/07/14	13:20	ON	196.9	70	50	18	5000	114	107	110		0.15	1.3	7.2
03/10/14	7:40	Startup	196.9	68	50	18	5000	114	108	68		0.16	1.3	8.5
03/11/14	14:10	ON	228.4	72	50	18	5000	114	107	110		0.15	1.5	9.9
03/12/14	13:05	ON	251.3	74	50	18	5000	114	107	112		0.15	1.6	12
03/13/14	15:45	ON	277.7	76	50	18	5000	114	106	116		0.15	1.8	13
03/20/14	9:40	ON	443.3	72	50	18	5000	114	107	100	7,000	0.067	1.2	15
03/27/14	13:10	ON	617.7	76	50	18	5000	114	106	100		0.067	1.7	16
04/03/14	8:45	ON	785.1	72	50	18	5000	114	107	100		0.067	2.2	18
04/10/14	11:45	ON	948.4	74	50	18	5000	114	107	100		0.067	2.7	21
04/16/14	9:15	ON	1097.1	69	50	16	5000	114	108	88		0.068	3.1	24
04/25/14	5:55	ON	1310.7	70	50	16	5000	114	108	82	3,000	0.029	1.6	26
05/02/14	7:27	ON	1480.6	70	50	16	5000	114	108	86	2,100	0.020	1.3	27
05/09/14	10:00	ON	1652.0	70	50	16	5000	114	108	82		0.020	1.4	28
05/16/14	9:30	ON	1920.0	70	50	16	5000	114	108	88		0.020	1.6	30
05/23/14	9:00	ON	1988.3	68	50	16	5000	114	108	80	2,300	0.022	1.9	32
05/30/14	8:30	ON	2156.4	70	50	16	5000	114	108	80		0.022	2.0	34
06/06/14	5:00	ON	2320.5	68	50	10	4000	92	88	80		0.018	1.8	36
06/18/14	10:45	ON	2613.9	70	50	10	4000	92	88	80		0.018	2.0	38
06/24/14	12:45	ON	2760.1	70	50	10	4000	92	88	80		0.018	2.1	40
07/03/14	6:00	ON	2970.6	72	50	10	4000	92	87	84	7,000	0.055	6.8	47
07/10/14	6:30	ON	3139.6	72	50	10	4000	92	87	86		0.055	7.2	54

**TABLE 2**  
**SSD OPERATIONAL SUMMARY**  
**Former Young's Cleaners**  
**10700 MacArthur Boulevard, Oakland, California**

Date	Time	System Status (ON/OFF)	Hour Meter	Inlet Temp (°F)	VFD Setting (Hz)	System Vacuum (in-H2O)	Total Velocity (fpm)	**Total Flow (ACFM)	Total Flow (SCFM)	Outlet Temp (°F)	Total Influent VOCs (µg/m <sup>3</sup> )	Mass Removal Rate (lbs/day)	Mass Removal Per Period (lbs)	Cumulative Mass Removed (lbs)
08/11/14	5:30	ON	3909.8	72	50	10	4000	92	87	84	7,000	0.055	9.0	63
09/12/14	8:00	ON	4282.6	70	50	10	4000	92	88	86	7,000	0.055	9.9	73
10/14/14	10:00	ON	5457.2	70	50	10	4000	92	88	84	6,000	0.047	10.8	83
11/20/14	5:00	ON	6344.9	68	50	10	4000	92	88	80	24,000	0.19	50.2	134
12/31/14	5:30	ON	7333.0	62	50	10	4000	92	89	70	1,000	0.0080	2.4	136
01/14/15	7:30	ON	7672.6	62	50	10	4000	92	89	70	800	0.0064	2.0	138
02/11/15	7:30	ON	8347.5	64	50	10	4000	92	89	68	1,900	0.015	5.3	143
03/26/15	8:17	ON	9384.9	68	50	12	4200	96	92	72	1,300	0.011	4.2	148
04/20/15	6:00	ON	9995.6	62	50	12	4200	96	93	70	23,000	0.192	80.1	228
05/07/15	8:00	ON	10412.5	68	50	12	4200	96	92	74	27,000	0.223	96.9	325
06/18/15	10:00	ON	11448.2	68	50	12	4200	96	92	79	5,000	0.041	19.7	344
07/08/15	4:45	ON	11933.1	68	50	12	4200	96	92	78	900	0.0074	3.7	348
08/27/15	14:45	ON / OFF	13172.4	78	50	12	4200	96	90	86	2,800	0.023	12	360
09/28/15		Restart	13173.4	---	---	---	---	---	---	---	---	---	---	---
10/26/15	8:00	ON	13859.9	68	50	12	4200	96	92	78	0	0.00	0.0	360
11/24/15			14556						92		0	0.00	0.0	360
12/30/15			15420						92		290	0.0024	1.5	362
01/27/16			16092						92		1,200	0.010	6.7	369
02/18/16			16620						92		1,700	0.014	9.7	378
03/29/16			17580						92		3,000	0.025	18	397
04/26/16			18252						92		1,500	0.012	9.4	406
05/26/16			18972						92		2,200	0.018	14.4	420
06/29/16			19788						92		4,000	0.033	27.3	448
07/27/16	11:35	ON	20604.3	78	50	12	4200	96	90	86	2,700	0.022	18.8	466
08/23/16	12:18	ON	21265.4	72	50	12	4200	96	91	82	500	0.004	3.6	470
09/30/16	13:02	ON	22197.2	70	50	12	4200	96	92	78	5,000	0.041	38	508
10/18/16	9:52	ON	22658.8	67	50	12	4200	96	92	74	4,000	0.033	31	540
11/29/16	14:10	ON	23668.1	63	50	12	4000	92	88	70	3,000	0.024	24	563
12/29/16	14:50	ON	24403.5	60	50	12	4000	92	89	70	10,000	0.080	81	644
01/31/17	12:35	ON	25209.2	60	50	12	4000	92	89	68	7,000	0.056	59	703

**TABLE 2**  
**SSD OPERATIONAL SUMMARY**  
**Former Young's Cleaners**  
**10700 MacArthur Boulevard, Oakland, California**

Date	Time	System Status (ON/OFF)	Hour Meter	Inlet Temp (°F)	VFD Setting (Hz)	System Vacuum (in-H2O)	Total Velocity (fpm)	**Total Flow (ACFM)	Total Flow (SCFM)	Outlet Temp (°F)	Total Influent VOCs (µg/m <sup>3</sup> )	Mass Removal Rate (lbs/day)	Mass Removal Per Period (lbs)	Cumulative Mass Removed (lbs)
02/23/17	11:50	ON	25770.7	60	50	12	4000	92	89	60	4,000	0.032	34	737
03/31/17	14:50	ON	26544	---	---	---	---	---	89	---	2,000	0.016	18	755
04/25/17	17:05	ON	27315.3	70	50	12	---	---	89	80	---	0.016	18	773
05/31/17	13:34	ON	28132.3	72	50	12	4000	92	87	86	2,400	0.019	22	795
06/28/17	12:46	ON	28807.5	70	50	12	4000	92	87	80	700	0.005	7	802
07/28/17	12:30	ON	29506.9	72	50	12	4000	92	87	80	2,500	0.020	24	826
08/28/17	11:18	ON	30249.4	76	50	12	4000	92	86	84	2,800	0.022	27	853
09/29/17	12:46	ON	31053.8	72	50	11	5800	133	126	82	2,700	0.031	40	893

**Notes / Abbreviations:**

°F = degrees Farenheight

in-WC = inches of water column

FPM = feet per minute

ACFM = actual cubic feet per minute

SCFM = standard cubic feet per minute

µg/m<sup>3</sup> = micrograms per cubic meter

lbs = pounds

$$SCFM = ACFM \left( \frac{P_{gauge} + 14.7 \text{ PSI}}{14.7 \text{ PSI}} \right) \left( \frac{519 \text{ } ^\circ F}{460 \text{ } ^\circ F + T} \right)$$

**TABLE 3  
ABATEMENT MEASUREMENT SUMMARY  
Former Young's Cleaners  
10700 MacArthur Boulevard, Oakland, California**

Date	Time	INF (SSD) (ppmv)	MID (SSD) (ppmv)	EFF (SSD) (ppmv)	INF (SVE) (ppmv)	MID (SVE) (ppmv)	EFF (SVE) (ppmv)	COMB INF (ppmv)	COMB MID (ppmv)	COMB EFF (ppmv)	Back-Ground
01/14/14	9:10	17.4	1.4	0.2	23.2	1.8	0.2	--	--	--	0.0
01/15/14	12:10	18.6	0.6	0.3	30.7	0.8	0.3	--	--	--	0.0
01/16/14	8:00	15.2	0.8	0.2	27.3	0.7	0.4	--	--	--	0.0
01/17/14	9:15	17.7	0.8	0.2	25.1	0.6	0.4	--	--	--	0.0
03/03/14	10:10	15.3	0.5	0.0	32.1	0.4	0.0	--	--	--	0.0
03/04/14	14:15	13.1	0.5	0.0	28.3	0.4	0.0	--	--	--	0.0
03/05/14	8:45	7.3	0.9	0.0	26.6	0.6	0.0	--	--	--	0.0
03/06/14	11:45	8.4	1.2	0.0	24.3	1.3	0.0	--	--	--	0.0
03/07/14	13:35	7.9	1.0	0.0	25.1	1.5	0.0	--	--	--	0.0
03/10/14	7:50	8.9	1.0	0.0	28.3	1.5	0.0	--	--	--	0.0
03/11/14	14:20	7.5	1.0	0.0	26.4	1.5	0.0	--	--	--	0.0
03/12/14	13:15	8.1	1.2	0.0	24.1	1.7	0.0	--	--	--	0.0
03/13/14	16:00	6.2	2.1	0.0	22.0	2.3	0.0	--	--	--	0.0
03/20/14	10:00	2.6	1.5	0.0	338.2	5.1	0.2	--	--	--	0.0
03/27/14	13:10	2.8	1.7	0.0	295.1	12.8	0.8	--	--	--	0.0
04/03/14	8:45	1.5	1.6	0.0	412.0	0.5	0.0	--	--	--	0.0
04/10/14	13:45	0.9	1.5	0.0	213.0	0.5	0.0	--	--	--	0.0
04/16/14	9:15	1.9	1.8	0.0	78.9	13.7	0.0	--	--	--	0.0
04/25/14	5:40	1.5	1.9	0.0	66.4	1.8	0.0	--	--	--	0.0
05/16/14	10:00	2.2	1.4	0.0	62.8	3.9	0.0	--	--	--	0.0
05/23/14	8:50	0.7	0.2	0.0	50.7	0.3	0.0	--	--	--	0.0
05/30/14	8:45	1.2	0.2	0.0	48.2	0.3	0.0	--	--	--	0.0
06/06/14	5:00	1.8	0.2	0.0	68.6	0.4	0.0	0.0	0.0	0.0	0.0
06/08/14	11:00	1.3	0.0	0.0	67.8	4.3	0.8	0.0	0.0	0.0	0.0
06/24/14	12:00	1.5	0.0	0.0	58.3	6.2	0.9	0.0	0.0	0.0	0.0
07/03/14	6:15	3.4	0.0	0.0	54.6	8.4	0.9	0.0	0.0	0.0	0.0
07/10/14	7:00	2.1	0.0	0.0	43.7	10.8	1.7	0.0	0.0	0.0	0.0
08/11/14	6:15	16.3	7.4	0.0	84.5	44.5	35.8	32.7	5.1	0.0	0.0
09/12/14	8:30	2.4	0.0	0.0	63.2	23.8	10.7	0.0	0.0	0.0	0.0
10/14/14	10:15	15.1	2.6	0.0	78.7	17.3	5.2	3.8	0.0	0.0	0.0
11/20/14	5:00	12.7	1.8	0.0	33.9	14.8	4.7	2.3	0.0	0.0	0.0
12/31/14	5:45	20.3	1.5	0.0	26.3	12.4	3.2	2.0	0.0	0.0	0.0
01/14/15	7:45	1.3	1.0	0.0	48.2	13.7	3.8	2.0	0.0	0.0	0.0
02/11/15	7:45	0.9	0.0	0.0	60.2	8.3	2.6	1.0	0.0	0.0	0.0
03/26/18	8:20	2.2	1.6	1.3	--	--	--	--	--	--	--
04/20/15	6:00	18.3	1.4	1.6	21.9	6.2	1.8	2.1	0.0	0.0	0.0
05/07/15	8:20	28.6	1.6	1.5	46.1	7.4	2.1	2.3	0.0	0.0	0.0
06/18/15	9:50	48.7	1.4	1.5	77.2	7.2	2.5	2.5	0.0	0.0	0.0
07/08/15	4:30	56.7	1.5	1.5	68.4	7.2	2.6	2.6	0.0	0.0	0.0
08/27/15	14:45	9.5	3.4	2.9	129.1	124.5	1.6	1.4	0.3	0.0	0.0
10/26/15	7:45	4.3	1.6	3.4	83.4	130.8	3.4	3.5	0.5	0.5	0.0
07/27/16	11:40	4.9	5.0	1.1	144.8	173.2	1.4	2.2	0.5	1.0	0.0
08/23/16	12:50	2.2	1.2	4.2	114.5	138.7	3.9	3.7	1.2	1.0	0.0
09/30/16	13:10	2.2	2.3	2.8	112.3	122.2	2.9	3.0	0.2	0.3	0.0
10/18/16	9:58	4.3	4.2	10.7	86.7	110.9	13.9	15.4	9.4	6.6	0.0
11/29/16	14:13	2.2	2.2	2.4	61.9	65.6	3.1	3.1	0.3	0.6	0.0
12/29/16	14:57	2.3	2.0	1.5	82.2	78.1	1.5	1.4	0.4	0.4	0.0
01/31/17	12:40	3.4	4.1	5.9	81.5	80.2	6.0	5.8	0.5	0.9	0.0
02/23/17	11:50	2.5	2.1	1.8	---	---	---	1.8	0.4	0.3	0.0
03/31/17	14:50	2.0	1.9	0.9	---	---	---	---	---	---	---
04/27/17	16:50	3.1	3.8	3.6	---	---	---	9.6	1.1	0.9	0.3
05/31/17	--	12.3	11.8	3.2	---	---	---	3.4	0.0	0.0	0.2
06/28/17	12:46	13.8	14.2	10.8	---	---	---	11.2	0.6	1.3	0.6
07/28/17	12:21	1.0	1.3	1.4	---	---	---	1.6	0.3	0.5	0.0
08/28/17	11:08	1.2	0.3	0.8	---	---	---	0.8	0.2	0.1	0.0
09/29/17	12:40	1.3	1.3	1.4	---	---	---	4.1	1.4	0.5	0.0

**NOTES:**

- 3/27/14 : SVE System shut down due to high carbon Readings
- 4/3/14 : Switched out 1 carbon drum on SVE system; added KMN Drum for Initial cleanup; now KMN/Carbon 1/Carbon 2
- 4/16/14; Switched out 1 carbon drum on SVE system due to high readings; kept KMN in place
- 6/6/14; Modified system design to install carbon drums after system blower (combined INF / MID / EFF)

ppmv = parts per million by volume  
ppbv = parts per billion by volume  
nm = not measured

**TABLE 4  
VACUUM MEASUREMENT SUMMARY  
Former Young's Cleaners  
10700 MacArthur Boulevard, Oakland, California**

Date	Time	SS-1 (in-H2O)	SS-2 (in-H2O)	SS-3 (in-H2O)	SS-4 (in-H2O)	SS-5 (in-H2O)	SS-6 (in-H2O)	SS-7 (in-H2O)	SS-8 (in-H2O)	SS-9 (in-H2O)	SS-10 (in-H2O)	VM-1 (in-H2O)	VM-2 (in-H2O)	VM-3 (in-H2O)	VM-4 (in-H2O)	VM-5 (in-H2O)	VM-6 (in-H2O)	VM-7 (in-H2O)	VM-8 (in-H2O)	VM-9 (in-H2O)	VM-10 (in-H2O)		
01/14/14	8:45	0.012	0.016	0.049	0.121	0.124	0.021	0.026	0.006	0.007	0.042	--	--	--	--	--	--	--	--	--	--	--	
01/15/14	12:20	0.013	0.016	0.047	0.119	0.127	0.023	0.021	0.007	0.005	0.040	--	--	--	--	--	--	--	--	--	--	--	
03/11/14	14:35	0.014	0.015	0.048	0.120	0.125	0.022	0.025	0.008	0.006	0.041	--	--	--	--	--	--	--	--	--	--	--	
03/20/14	10:20	0.013	0.014	0.048	0.110	0.121	0.021	0.024	0.006	0.004	0.040	--	--	--	--	--	--	--	--	--	--	--	
05/02/14		0.220	0.050	0.144	0.121	0.177	0.048	0.104	0.008	0.023	0.373	0.397	0.453	0.141	0.042	0.317	0.086	0.076	0.014	0.126	0.102		
05/18/14	12:00	0.019	0.034	0.099	0.103	0.152	0.037	0.095	0.005	0.019	0.308	0.353	0.417	0.130	0.025	--	--	--	--	--	--	--	
09/12/14	14:30	0.020	0.038	0.124	0.110	0.162	0.032	0.089	0.007	0.015	0.290	0.007	0.013	0.110	0.002	0.285	0.073	0.069	0.013	0.110	0.092		
10/14/14	10:30	0.023	0.032	0.112	0.107	0.148	0.033	0.090	0.006	0.020	0.298	0.010	0.018	0.121	0.013	0.123	0.092	0.088	0.008	0.091	0.101		
11/20/14	12:30	0.021	0.034	0.132	0.111	0.143	0.031	0.088	0.006	0.019	0.301	0.011	0.015	0.108	0.010	0.209	0.088	0.073	0.010	0.103	0.090		
01/14/15		0.022	0.030	0.128	0.109	0.145	0.032	0.086	0.006	0.018	0.298	0.010	0.016	0.110	0.011	0.213	0.090	0.076	0.012	0.098	0.090		
03/26/15	8:43	0.015	--	--	--	--	--	--	--	0.015	--	--	--	--	--	0.189	0.089	0.080	0.009	0.101	0.092		
04/17/15	10:30	0.019	0.031	0.130	0.110	0.142	0.030	0.088	0.005	0.017	0.302	0.011	0.015	0.109	0.010	0.192	0.090	0.077	0.009	0.098	0.092		
08/27/15	15:22	0.012	--	--	--	--	--	--	--	0.017	--	0.147	--	--	--	--	--	--	--	--	--	--	
10/26/15	8:15	0.016	--	0.009	0.097	0.115	0.032	0.006	0.015	0.015	--	0.169	--	0.009	0.044	0.187	0.009	0.002	0.157	0.092	--		
11/24/15	12:30	0.011	--	--	0.074	--	0.032	--	0.005	0.004	--	0.331	--	--	0.038	--	0.009	--	0.202	0.144	--		
12/29/15	12:20	0.006	0.001	0.004	0.068	0.056	0.006	0.000	0.005	0.011	0.130	0.366	0.696	0.004	0.030	.020	0.220	0.001	0.228	0.227	0.004		
01/27/15	11:55	0.015	0.002	0.004	0.085	0.014	0.006	0.000	0.011	0.012	0.005	0.790	0.580	0.002	0.043	0.079	0.024	0.004	0.125	0.186	1.082		
02/18/16	11:45	0.041	0.005	0.010	0.089	0.095	0.011	0.013	0.014	0.012	0.009	0.602	0.604	0.009	0.043	0.110	0.029	0.005	0.171	0.131	0.914		
03/29/16	12:15	0.041	0.005	0.009	0.083	0.097	0.009	0.005	0.003	0.013	0.007	0.333	0.247	0.007	0.039	0.142	0.026	0.005	0.106	0.114	1.235		
04/26/16	12:40	0.009	0.006	0.009	0.090	0.103	0.011	0.007	0.012	0.017	0.012	0.513	0.010	0.011	0.050	0.176	0.028	0.006	0.152	0.140	0.217		
05/26/16	13:40	0.040	0.003	0.008	0.090	0.110	0.010	0.005	0.011	0.016	0.007	0.351	0.195	0.009	0.043	0.074	0.031	0.006	0.084	0.059	0.963		
06/29/16	12:40	0.041	0.005	0.007	0.091	0.118	0.011	0.004	0.013	0.014	0.808	0.310	0.012	0.008	0.037	0.057	0.031	0.007	0.090	0.090	0.791		
07/27/16		0.041	0.007	0.007	0.091	0.122	0.011	0.005	0.012	0.017	0.010	0.471	0.058	0.010	0.024	0.132	0.031	0.007	0.139	0.080	1.109		
08/23/16	11:30	0.015	0.015	0.004	0.010	0.094	--	0.006	0.011	0.017	0.007	0.445	0.005	0.005	0.045	--	0.034	0.005	0.025	0.140	0.781		
09/30/16	13:25	0.040	0.040	0.008	0.015	0.092	0.132	0.100	0.012	0.015	0.009	0.487	0.100	0.010	0.043	0.117	0.039	0.008	0.161	0.090	1.243		
10/18/16	10:15	0.048	0.048	0.007	0.005	0.092	0.124	0.003	0.013	0.017	0.005	0.590	0.276	0.005	0.045	0.202	0.030	0.004	0.129	0.130	0.946		
11/29/16	15:00	0.034	0.034	0.004	0.002	0.081	0.107	0.004	0.009	0.015	0.005	0.995	0.047	0.002	0.038	0.188	0.025	0.002	0.095	0.072	1.191		
12/29/16	14:05	0.040	0.040	0.004	0.002	0.077	0.090	0.001	0.009	0.014	0.005	1.108	0.334	0.002	0.032	0.103	0.022	0.002	0.278	0.097	1.487		
01/31/17	11:50	0.040	0.040	0.002	0.003	0.081	0.104	0.002	0.009	0.015	0.005	2.930	0.661	0.004	0.036	0.109	0.025	0.003	0.170	0.082	0.665		
02/23/17	10:23	0.035	0.035	0.003	0.000	0.089	0.128	0.002	0.008	0.016	0.003	2.280	0.089	0.000	0.037	0.222	0.026	0.001	0.245	0.105	1.808		
05/31/17	13:00	0.013	0.013	--	0.008	0.094	0.153	0.003	0.015	0.032	--	0.177	0.005	0.007	0.038	0.004	0.010	0.007	0.004	0.007	--		
06/28/17	12:00	0.041	-- <sup>1</sup>	0.009	0.100	0.170	0.017	0.005	0.016	0.026	0.013	0.044	-- <sup>1</sup>	0.009	0.045	0.005	0.033	0.007	0.031	0.007	--		
07/28/17	11:51	0.017	-- <sup>1</sup>	0.003	0.098	0.170	0.014	0.004	0.014	0.025	0.014	0.307	-- <sup>1</sup>	0.010	0.043	0.008	0.034	0.006	0.034	0.020	--		
08/28/17	11:22	0.014	-- <sup>1</sup>	0.010	0.100	--	0.015	0.005	0.016	--	0.012	0.009	-- <sup>1</sup>	0.010	0.047	--	0.033	0.009	0.001	--	--		
09/29/17	12:54	0.037	-- <sup>1</sup>	0.007	0.098	--	0.014	0.006	0.016	--	0.009	1.237	-- <sup>1</sup>	0.007	0.051	--	0.032	0.006	0.033	--	--		

**Notes / Abbreviations:**

<sup>1</sup> = No access due to shelving installed on top of the probe.

# Appendix A

## Laboratory Analytical Reports





# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701D41

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:**

**Project Name:** 261829; Foothill Square

**Project Received:** 01/31/2017

Analytical Report reviewed & approved for release on 02/06/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 261829; Foothill Square  
**WorkOrder:** 1701D41

### 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
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)

### Analytical Qualifiers

H samples were analyzed out of holding time



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1701D41-001A	Air	01/31/2017 12:50	GC16	133530

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	H	0.25	1	02/01/2017 11:28
Benzene	ND	H	0.25	1	02/01/2017 11:28
Bromobenzene	ND	H	0.25	1	02/01/2017 11:28
Bromochloromethane	ND	H	0.25	1	02/01/2017 11:28
Bromodichloromethane	ND	H	0.25	1	02/01/2017 11:28
Bromoform	ND	H	0.25	1	02/01/2017 11:28
Bromomethane	ND	H	0.25	1	02/01/2017 11:28
t-Butyl alcohol (TBA)	ND	H	2.5	1	02/01/2017 11:28
n-Butyl benzene	ND	H	0.25	1	02/01/2017 11:28
sec-Butyl benzene	ND	H	0.25	1	02/01/2017 11:28
tert-Butyl benzene	ND	H	0.25	1	02/01/2017 11:28
Carbon Disulfide	ND	H	0.25	1	02/01/2017 11:28
Carbon Tetrachloride	ND	H	0.25	1	02/01/2017 11:28
Chlorobenzene	ND	H	0.25	1	02/01/2017 11:28
Chloroethane	ND	H	0.25	1	02/01/2017 11:28
Chloroform	ND	H	0.25	1	02/01/2017 11:28
Chloromethane	ND	H	0.25	1	02/01/2017 11:28
2-Chlorotoluene	ND	H	0.25	1	02/01/2017 11:28
4-Chlorotoluene	ND	H	0.25	1	02/01/2017 11:28
Dibromochloromethane	ND	H	0.25	1	02/01/2017 11:28
1,2-Dibromo-3-chloropropane	ND	H	0.25	1	02/01/2017 11:28
1,2-Dibromoethane (EDB)	ND	H	0.25	1	02/01/2017 11:28
Dibromomethane	ND	H	0.25	1	02/01/2017 11:28
1,2-Dichlorobenzene	ND	H	0.25	1	02/01/2017 11:28
1,3-Dichlorobenzene	ND	H	0.25	1	02/01/2017 11:28
1,4-Dichlorobenzene	ND	H	0.25	1	02/01/2017 11:28
Dichlorodifluoromethane	ND	H	0.25	1	02/01/2017 11:28
1,1-Dichloroethane	ND	H	0.25	1	02/01/2017 11:28
1,2-Dichloroethane (1,2-DCA)	ND	H	0.25	1	02/01/2017 11:28
1,1-Dichloroethene	ND	H	0.25	1	02/01/2017 11:28
cis-1,2-Dichloroethene	<b>0.47</b>	H	0.25	1	02/01/2017 11:28
trans-1,2-Dichloroethene	ND	H	0.25	1	02/01/2017 11:28
1,2-Dichloropropane	ND	H	0.25	1	02/01/2017 11:28
1,3-Dichloropropane	ND	H	0.25	1	02/01/2017 11:28
2,2-Dichloropropane	ND	H	0.25	1	02/01/2017 11:28
1,1-Dichloropropene	ND	H	0.25	1	02/01/2017 11:28
cis-1,3-Dichloropropene	ND	H	0.25	1	02/01/2017 11:28

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## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1701D41-001A	Air	01/31/2017 12:50	GC16	133530

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	H	0.25	1	02/01/2017 11:28
Diisopropyl ether (DIPE)	ND	H	0.25	1	02/01/2017 11:28
Ethylbenzene	ND	H	0.25	1	02/01/2017 11:28
Ethyl tert-butyl ether (ETBE)	ND	H	0.25	1	02/01/2017 11:28
Freon 113	ND	H	5.0	1	02/01/2017 11:28
Hexachlorobutadiene	ND	H	0.25	1	02/01/2017 11:28
Hexachloroethane	ND	H	0.25	1	02/01/2017 11:28
2-Hexanone	ND	H	0.25	1	02/01/2017 11:28
Isopropylbenzene	ND	H	0.25	1	02/01/2017 11:28
4-Isopropyl toluene	ND	H	0.25	1	02/01/2017 11:28
Methyl-t-butyl ether (MTBE)	ND	H	0.25	1	02/01/2017 11:28
Methylene chloride	ND	H	0.25	1	02/01/2017 11:28
n-Propyl benzene	ND	H	0.25	1	02/01/2017 11:28
Styrene	ND	H	0.25	1	02/01/2017 11:28
1,1,1,2-Tetrachloroethane	ND	H	0.25	1	02/01/2017 11:28
1,1,2,2-Tetrachloroethane	ND	H	0.25	1	02/01/2017 11:28
Tetrachloroethene	<b>5.8</b>	H	0.25	1	02/01/2017 11:28
Toluene	ND	H	0.25	1	02/01/2017 11:28
1,2,3-Trichlorobenzene	ND	H	0.25	1	02/01/2017 11:28
1,2,4-Trichlorobenzene	ND	H	0.25	1	02/01/2017 11:28
1,1,1-Trichloroethane	ND	H	0.25	1	02/01/2017 11:28
1,1,2-Trichloroethane	ND	H	0.25	1	02/01/2017 11:28
Trichloroethene	<b>0.98</b>	H	0.25	1	02/01/2017 11:28
Trichlorofluoromethane	ND	H	0.25	1	02/01/2017 11:28
1,2,3-Trichloropropane	ND	H	0.25	1	02/01/2017 11:28
1,2,4-Trimethylbenzene	ND	H	0.25	1	02/01/2017 11:28
1,3,5-Trimethylbenzene	ND	H	0.25	1	02/01/2017 11:28
Vinyl Chloride	ND	H	0.25	1	02/01/2017 11:28
Xylenes, Total	ND	H	0.25	1	02/01/2017 11:28
Surrogates	REC (%)	Qualifiers	Limits		
Dibromofluoromethane	98	H	70-130		02/01/2017 11:28
Toluene-d8	103	H	70-130		02/01/2017 11:28
4-BFB	80	H	70-130		02/01/2017 11:28

Analyst(s): KF

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVE-1 INF	1701D41-002A	Air	01/31/2017 12:55	GC16	133530
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	H	5.0	20	02/01/2017 12:50
Benzene	ND	H	5.0	20	02/01/2017 12:50
Bromobenzene	ND	H	5.0	20	02/01/2017 12:50
Bromochloromethane	ND	H	5.0	20	02/01/2017 12:50
Bromodichloromethane	ND	H	5.0	20	02/01/2017 12:50
Bromoform	ND	H	5.0	20	02/01/2017 12:50
Bromomethane	ND	H	5.0	20	02/01/2017 12:50
t-Butyl alcohol (TBA)	ND	H	50	20	02/01/2017 12:50
n-Butyl benzene	ND	H	5.0	20	02/01/2017 12:50
sec-Butyl benzene	ND	H	5.0	20	02/01/2017 12:50
tert-Butyl benzene	ND	H	5.0	20	02/01/2017 12:50
Carbon Disulfide	ND	H	5.0	20	02/01/2017 12:50
Carbon Tetrachloride	ND	H	5.0	20	02/01/2017 12:50
Chlorobenzene	ND	H	5.0	20	02/01/2017 12:50
Chloroethane	ND	H	5.0	20	02/01/2017 12:50
Chloroform	ND	H	5.0	20	02/01/2017 12:50
Chloromethane	ND	H	5.0	20	02/01/2017 12:50
2-Chlorotoluene	ND	H	5.0	20	02/01/2017 12:50
4-Chlorotoluene	ND	H	5.0	20	02/01/2017 12:50
Dibromochloromethane	ND	H	5.0	20	02/01/2017 12:50
1,2-Dibromo-3-chloropropane	ND	H	5.0	20	02/01/2017 12:50
1,2-Dibromoethane (EDB)	ND	H	5.0	20	02/01/2017 12:50
Dibromomethane	ND	H	5.0	20	02/01/2017 12:50
1,2-Dichlorobenzene	ND	H	5.0	20	02/01/2017 12:50
1,3-Dichlorobenzene	ND	H	5.0	20	02/01/2017 12:50
1,4-Dichlorobenzene	ND	H	5.0	20	02/01/2017 12:50
Dichlorodifluoromethane	ND	H	5.0	20	02/01/2017 12:50
1,1-Dichloroethane	ND	H	5.0	20	02/01/2017 12:50
1,2-Dichloroethane (1,2-DCA)	ND	H	5.0	20	02/01/2017 12:50
1,1-Dichloroethene	ND	H	5.0	20	02/01/2017 12:50
cis-1,2-Dichloroethene	9.2	H	5.0	20	02/01/2017 12:50
trans-1,2-Dichloroethene	ND	H	5.0	20	02/01/2017 12:50
1,2-Dichloropropane	ND	H	5.0	20	02/01/2017 12:50
1,3-Dichloropropane	ND	H	5.0	20	02/01/2017 12:50
2,2-Dichloropropane	ND	H	5.0	20	02/01/2017 12:50
1,1-Dichloropropene	ND	H	5.0	20	02/01/2017 12:50
cis-1,3-Dichloropropene	ND	H	5.0	20	02/01/2017 12:50

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## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVE-1 INF	1701D41-002A	Air	01/31/2017 12:55	GC16	133530

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	H	5.0	20	02/01/2017 12:50
Diisopropyl ether (DIPE)	ND	H	5.0	20	02/01/2017 12:50
Ethylbenzene	ND	H	5.0	20	02/01/2017 12:50
Ethyl tert-butyl ether (ETBE)	ND	H	5.0	20	02/01/2017 12:50
Freon 113	ND	H	100	20	02/01/2017 12:50
Hexachlorobutadiene	ND	H	5.0	20	02/01/2017 12:50
Hexachloroethane	ND	H	5.0	20	02/01/2017 12:50
2-Hexanone	ND	H	5.0	20	02/01/2017 12:50
Isopropylbenzene	ND	H	5.0	20	02/01/2017 12:50
4-Isopropyl toluene	ND	H	5.0	20	02/01/2017 12:50
Methyl-t-butyl ether (MTBE)	ND	H	5.0	20	02/01/2017 12:50
Methylene chloride	ND	H	5.0	20	02/01/2017 12:50
n-Propyl benzene	ND	H	5.0	20	02/01/2017 12:50
Styrene	ND	H	5.0	20	02/01/2017 12:50
1,1,1,2-Tetrachloroethane	ND	H	5.0	20	02/01/2017 12:50
1,1,2,2-Tetrachloroethane	ND	H	5.0	20	02/01/2017 12:50
Tetrachloroethene	<b>190</b>	H	5.0	20	02/01/2017 12:50
Toluene	ND	H	5.0	20	02/01/2017 12:50
1,2,3-Trichlorobenzene	ND	H	5.0	20	02/01/2017 12:50
1,2,4-Trichlorobenzene	ND	H	5.0	20	02/01/2017 12:50
1,1,1-Trichloroethane	ND	H	5.0	20	02/01/2017 12:50
1,1,2-Trichloroethane	ND	H	5.0	20	02/01/2017 12:50
Trichloroethene	<b>28</b>	H	5.0	20	02/01/2017 12:50
Trichlorofluoromethane	ND	H	5.0	20	02/01/2017 12:50
1,2,3-Trichloropropane	ND	H	5.0	20	02/01/2017 12:50
1,2,4-Trimethylbenzene	ND	H	5.0	20	02/01/2017 12:50
1,3,5-Trimethylbenzene	ND	H	5.0	20	02/01/2017 12:50
Vinyl Chloride	ND	H	5.0	20	02/01/2017 12:50
Xylenes, Total	ND	H	5.0	20	02/01/2017 12:50
Surrogates	REC (%)	Qualifiers	Limits		
Dibromofluoromethane	98	H	70-130		02/01/2017 12:50
Toluene-d8	102	H	70-130		02/01/2017 12:50
4-BFB	82	H	70-130		02/01/2017 12:50

Analyst(s): KF



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1701D41-001A	Air	01/31/2017 12:50	GC16	133530
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	H	250	1	02/01/2017 11:28
Benzene	ND	H	250	1	02/01/2017 11:28
Bromobenzene	ND	H	250	1	02/01/2017 11:28
Bromochloromethane	ND	H	250	1	02/01/2017 11:28
Bromodichloromethane	ND	H	250	1	02/01/2017 11:28
Bromoform	ND	H	250	1	02/01/2017 11:28
Bromomethane	ND	H	250	1	02/01/2017 11:28
t-Butyl alcohol (TBA)	ND	H	2500	1	02/01/2017 11:28
n-Butyl benzene	ND	H	250	1	02/01/2017 11:28
sec-Butyl benzene	ND	H	250	1	02/01/2017 11:28
tert-Butyl benzene	ND	H	250	1	02/01/2017 11:28
Carbon Disulfide	ND	H	250	1	02/01/2017 11:28
Carbon Tetrachloride	ND	H	250	1	02/01/2017 11:28
Chlorobenzene	ND	H	250	1	02/01/2017 11:28
Chloroethane	ND	H	250	1	02/01/2017 11:28
Chloroform	ND	H	250	1	02/01/2017 11:28
Chloromethane	ND	H	250	1	02/01/2017 11:28
2-Chlorotoluene	ND	H	250	1	02/01/2017 11:28
4-Chlorotoluene	ND	H	250	1	02/01/2017 11:28
Dibromochloromethane	ND	H	250	1	02/01/2017 11:28
1,2-Dibromo-3-chloropropane	ND	H	250	1	02/01/2017 11:28
1,2-Dibromoethane (EDB)	ND	H	250	1	02/01/2017 11:28
Dibromomethane	ND	H	250	1	02/01/2017 11:28
1,2-Dichlorobenzene	ND	H	250	1	02/01/2017 11:28
1,3-Dichlorobenzene	ND	H	250	1	02/01/2017 11:28
1,4-Dichlorobenzene	ND	H	250	1	02/01/2017 11:28
Dichlorodifluoromethane	ND	H	250	1	02/01/2017 11:28
1,1-Dichloroethane	ND	H	250	1	02/01/2017 11:28
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	02/01/2017 11:28
1,1-Dichloroethene	ND	H	250	1	02/01/2017 11:28
cis-1,2-Dichloroethene	<b>470</b>	H	250	1	02/01/2017 11:28
trans-1,2-Dichloroethene	ND	H	250	1	02/01/2017 11:28
1,2-Dichloropropane	ND	H	250	1	02/01/2017 11:28
1,3-Dichloropropane	ND	H	250	1	02/01/2017 11:28
2,2-Dichloropropane	ND	H	250	1	02/01/2017 11:28
1,1-Dichloropropene	ND	H	250	1	02/01/2017 11:28
cis-1,3-Dichloropropene	ND	H	250	1	02/01/2017 11:28

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1701D41-001A	Air	01/31/2017 12:50	GC16	133530

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	H	250	1	02/01/2017 11:28
Diisopropyl ether (DIPE)	ND	H	250	1	02/01/2017 11:28
Ethylbenzene	ND	H	250	1	02/01/2017 11:28
Ethyl tert-butyl ether (ETBE)	ND	H	250	1	02/01/2017 11:28
Freon 113	ND	H	5000	1	02/01/2017 11:28
Hexachlorobutadiene	ND	H	250	1	02/01/2017 11:28
Hexachloroethane	ND	H	250	1	02/01/2017 11:28
2-Hexanone	ND	H	250	1	02/01/2017 11:28
Isopropylbenzene	ND	H	250	1	02/01/2017 11:28
4-Isopropyl toluene	ND	H	250	1	02/01/2017 11:28
Methyl-t-butyl ether (MTBE)	ND	H	250	1	02/01/2017 11:28
Methylene chloride	ND	H	250	1	02/01/2017 11:28
n-Propyl benzene	ND	H	250	1	02/01/2017 11:28
Styrene	ND	H	250	1	02/01/2017 11:28
1,1,1,2-Tetrachloroethane	ND	H	250	1	02/01/2017 11:28
1,1,2,2-Tetrachloroethane	ND	H	250	1	02/01/2017 11:28
Tetrachloroethene	<b>5800</b>	H	250	1	02/01/2017 11:28
Toluene	ND	H	250	1	02/01/2017 11:28
1,2,3-Trichlorobenzene	ND	H	250	1	02/01/2017 11:28
1,2,4-Trichlorobenzene	ND	H	250	1	02/01/2017 11:28
1,1,1-Trichloroethane	ND	H	250	1	02/01/2017 11:28
1,1,2-Trichloroethane	ND	H	250	1	02/01/2017 11:28
Trichloroethene	<b>980</b>	H	250	1	02/01/2017 11:28
Trichlorofluoromethane	ND	H	250	1	02/01/2017 11:28
1,2,3-Trichloropropane	ND	H	250	1	02/01/2017 11:28
1,2,4-Trimethylbenzene	ND	H	250	1	02/01/2017 11:28
1,3,5-Trimethylbenzene	ND	H	250	1	02/01/2017 11:28
Vinyl Chloride	ND	H	250	1	02/01/2017 11:28
Xylenes, Total	ND	H	250	1	02/01/2017 11:28
Surrogates	REC (%)	Qualifiers	Limits		
Dibromofluoromethane	98	H	70-130		02/01/2017 11:28
Toluene-d8	103	H	70-130		02/01/2017 11:28
4-BFB	80	H	70-130		02/01/2017 11:28

Analyst(s): KF

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager





## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVE-1 INF	1701D41-002A	Air	01/31/2017 12:55	GC16	133530
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	H	5000	20	02/01/2017 12:50
Benzene	ND	H	5000	20	02/01/2017 12:50
Bromobenzene	ND	H	5000	20	02/01/2017 12:50
Bromochloromethane	ND	H	5000	20	02/01/2017 12:50
Bromodichloromethane	ND	H	5000	20	02/01/2017 12:50
Bromoform	ND	H	5000	20	02/01/2017 12:50
Bromomethane	ND	H	5000	20	02/01/2017 12:50
t-Butyl alcohol (TBA)	ND	H	50,000	20	02/01/2017 12:50
n-Butyl benzene	ND	H	5000	20	02/01/2017 12:50
sec-Butyl benzene	ND	H	5000	20	02/01/2017 12:50
tert-Butyl benzene	ND	H	5000	20	02/01/2017 12:50
Carbon Disulfide	ND	H	5000	20	02/01/2017 12:50
Carbon Tetrachloride	ND	H	5000	20	02/01/2017 12:50
Chlorobenzene	ND	H	5000	20	02/01/2017 12:50
Chloroethane	ND	H	5000	20	02/01/2017 12:50
Chloroform	ND	H	5000	20	02/01/2017 12:50
Chloromethane	ND	H	5000	20	02/01/2017 12:50
2-Chlorotoluene	ND	H	5000	20	02/01/2017 12:50
4-Chlorotoluene	ND	H	5000	20	02/01/2017 12:50
Dibromochloromethane	ND	H	5000	20	02/01/2017 12:50
1,2-Dibromo-3-chloropropane	ND	H	5000	20	02/01/2017 12:50
1,2-Dibromoethane (EDB)	ND	H	5000	20	02/01/2017 12:50
Dibromomethane	ND	H	5000	20	02/01/2017 12:50
1,2-Dichlorobenzene	ND	H	5000	20	02/01/2017 12:50
1,3-Dichlorobenzene	ND	H	5000	20	02/01/2017 12:50
1,4-Dichlorobenzene	ND	H	5000	20	02/01/2017 12:50
Dichlorodifluoromethane	ND	H	5000	20	02/01/2017 12:50
1,1-Dichloroethane	ND	H	5000	20	02/01/2017 12:50
1,2-Dichloroethane (1,2-DCA)	ND	H	5000	20	02/01/2017 12:50
1,1-Dichloroethene	ND	H	5000	20	02/01/2017 12:50
cis-1,2-Dichloroethene	9200	H	5000	20	02/01/2017 12:50
trans-1,2-Dichloroethene	ND	H	5000	20	02/01/2017 12:50
1,2-Dichloropropane	ND	H	5000	20	02/01/2017 12:50
1,3-Dichloropropane	ND	H	5000	20	02/01/2017 12:50
2,2-Dichloropropane	ND	H	5000	20	02/01/2017 12:50
1,1-Dichloropropene	ND	H	5000	20	02/01/2017 12:50
cis-1,3-Dichloropropene	ND	H	5000	20	02/01/2017 12:50

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## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 1/31/17 14:40  
**Date Prepared:** 2/1/17  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVE-1 INF	1701D41-002A	Air	01/31/2017 12:55	GC16	133530

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	H	5000	20	02/01/2017 12:50
Diisopropyl ether (DIPE)	ND	H	5000	20	02/01/2017 12:50
Ethylbenzene	ND	H	5000	20	02/01/2017 12:50
Ethyl tert-butyl ether (ETBE)	ND	H	5000	20	02/01/2017 12:50
Freon 113	ND	H	100,000	20	02/01/2017 12:50
Hexachlorobutadiene	ND	H	5000	20	02/01/2017 12:50
Hexachloroethane	ND	H	5000	20	02/01/2017 12:50
2-Hexanone	ND	H	5000	20	02/01/2017 12:50
Isopropylbenzene	ND	H	5000	20	02/01/2017 12:50
4-Isopropyl toluene	ND	H	5000	20	02/01/2017 12:50
Methyl-t-butyl ether (MTBE)	ND	H	5000	20	02/01/2017 12:50
Methylene chloride	ND	H	5000	20	02/01/2017 12:50
n-Propyl benzene	ND	H	5000	20	02/01/2017 12:50
Styrene	ND	H	5000	20	02/01/2017 12:50
1,1,1,2-Tetrachloroethane	ND	H	5000	20	02/01/2017 12:50
1,1,2,2-Tetrachloroethane	ND	H	5000	20	02/01/2017 12:50
Tetrachloroethene	<b>190,000</b>	H	5000	20	02/01/2017 12:50
Toluene	ND	H	5000	20	02/01/2017 12:50
1,2,3-Trichlorobenzene	ND	H	5000	20	02/01/2017 12:50
1,2,4-Trichlorobenzene	ND	H	5000	20	02/01/2017 12:50
1,1,1-Trichloroethane	ND	H	5000	20	02/01/2017 12:50
1,1,2-Trichloroethane	ND	H	5000	20	02/01/2017 12:50
Trichloroethene	<b>28,000</b>	H	5000	20	02/01/2017 12:50
Trichlorofluoromethane	ND	H	5000	20	02/01/2017 12:50
1,2,3-Trichloropropane	ND	H	5000	20	02/01/2017 12:50
1,2,4-Trimethylbenzene	ND	H	5000	20	02/01/2017 12:50
1,3,5-Trimethylbenzene	ND	H	5000	20	02/01/2017 12:50
Vinyl Chloride	ND	H	5000	20	02/01/2017 12:50
Xylenes, Total	ND	H	5000	20	02/01/2017 12:50
Surrogates	REC (%)	Qualifiers	Limits		
Dibromofluoromethane	98	H	70-130		02/01/2017 12:50
Toluene-d8	102	H	70-130		02/01/2017 12:50
4-BFB	82	H	70-130		02/01/2017 12:50

Analyst(s): KF



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/1/17  
**Date Analyzed:** 2/1/17  
**Instrument:** GC16  
**Matrix:** Air  
**Project:** 261829; Foothill Square


**WorkOrder:** 1701D41  
**BatchID:** 133530  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-133530

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
tert-Amyl methyl ether (TAME)	ND	0.25	-	-	-
Benzene	ND	0.25	-	-	-
Bromobenzene	ND	0.25	-	-	-
Bromochloromethane	ND	0.25	-	-	-
Bromodichloromethane	ND	0.25	-	-	-
Bromoform	ND	0.25	-	-	-
Bromomethane	ND	0.25	-	-	-
t-Butyl alcohol (TBA)	ND	2.5	-	-	-
n-Butyl benzene	ND	0.25	-	-	-
sec-Butyl benzene	ND	0.25	-	-	-
tert-Butyl benzene	ND	0.25	-	-	-
Carbon Disulfide	ND	0.25	-	-	-
Carbon Tetrachloride	ND	0.25	-	-	-
Chlorobenzene	ND	0.25	-	-	-
Chloroethane	ND	0.25	-	-	-
Chloroform	ND	0.25	-	-	-
Chloromethane	ND	0.25	-	-	-
2-Chlorotoluene	ND	0.25	-	-	-
4-Chlorotoluene	ND	0.25	-	-	-
Dibromochloromethane	ND	0.25	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.25	-	-	-
1,2-Dibromoethane (EDB)	ND	0.25	-	-	-
Dibromomethane	ND	0.25	-	-	-
1,2-Dichlorobenzene	ND	0.25	-	-	-
1,3-Dichlorobenzene	ND	0.25	-	-	-
1,4-Dichlorobenzene	ND	0.25	-	-	-
Dichlorodifluoromethane	ND	0.25	-	-	-
1,1-Dichloroethane	ND	0.25	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.25	-	-	-
1,1-Dichloroethene	ND	0.25	-	-	-
cis-1,2-Dichloroethene	ND	0.25	-	-	-
trans-1,2-Dichloroethene	ND	0.25	-	-	-
1,2-Dichloropropane	ND	0.25	-	-	-
1,3-Dichloropropane	ND	0.25	-	-	-
2,2-Dichloropropane	ND	0.25	-	-	-
1,1-Dichloropropene	ND	0.25	-	-	-
cis-1,3-Dichloropropene	ND	0.25	-	-	-
trans-1,3-Dichloropropene	ND	0.25	-	-	-
Diisopropyl ether (DIPE)	ND	0.25	-	-	-

(Cont.)

NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/1/17  
**Date Analyzed:** 2/1/17  
**Instrument:** GC16  
**Matrix:** Air  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**BatchID:** 133530  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-133530

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Ethylbenzene	ND	0.25	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.25	-	-	-
Freon 113	ND	5.0	-	-	-
Hexachlorobutadiene	ND	0.25	-	-	-
Hexachloroethane	ND	0.25	-	-	-
2-Hexanone	ND	0.25	-	-	-
Isopropylbenzene	ND	0.25	-	-	-
4-Isopropyl toluene	ND	0.25	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.25	-	-	-
Methylene chloride	ND	0.25	-	-	-
n-Propyl benzene	ND	0.25	-	-	-
Styrene	ND	0.25	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.25	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.25	-	-	-
Tetrachloroethene	ND	0.25	-	-	-
Toluene	ND	0.25	-	-	-
1,2,3-Trichlorobenzene	ND	0.25	-	-	-
1,2,4-Trichlorobenzene	ND	0.25	-	-	-
1,1,1-Trichloroethane	ND	0.25	-	-	-
1,1,2-Trichloroethane	ND	0.25	-	-	-
Trichloroethene	ND	0.25	-	-	-
Trichlorofluoromethane	ND	0.25	-	-	-
1,2,3-Trichloropropane	ND	0.25	-	-	-
1,2,4-Trimethylbenzene	ND	0.25	-	-	-
1,3,5-Trimethylbenzene	ND	0.25	-	-	-
Vinyl Chloride	ND	0.25	-	-	-
Xylenes, Total	ND	0.25	-	-	-
<b>Surrogate Recovery</b>					
Dibromofluoromethane	12.46		12.5	100	70-130
Toluene-d8	12.7		12.5	102	70-130
4-BFB	1.028		1.25	82	70-130



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/1/17  
**Date Analyzed:** 2/1/17  
**Instrument:** GC16  
**Matrix:** Air  
**Project:** 261829; Foothill Square

**WorkOrder:** 1701D41  
**BatchID:** 133530  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-133530

### QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	4.44	4.32	5	89	87	56-133	2.49	30
Benzene	4.87	4.78	5	97	96	72-122	1.86	30
t-Butyl alcohol (TBA)	13.0	13.2	20	65	66	35-121	1.65	30
Chlorobenzene	4.97	4.83	5	99	97	69-112	2.85	30
1,2-Dibromoethane (EDB)	4.40	4.35	5	88	87	62-117	1.10	30
1,2-Dichloroethane (1,2-DCA)	4.60	4.51	5	92	90	61-126	1.93	30
1,1-Dichloroethene	4.42	4.40	5	88	88	67-122	0	30
Diisopropyl ether (DIPE)	4.30	4.20	5	86	84	61-131	2.53	30
Ethylbenzene	4.84	4.72	5	97	94	71-115	2.56	30
Ethyl tert-butyl ether (ETBE)	4.54	4.44	5	91	89	63-132	2.21	30
Methyl-t-butyl ether (MTBE)	4.60	4.51	5	92	90	63-127	1.95	30
Toluene	4.73	4.69	5	95	94	64-115	0.824	30
Trichloroethene	5.27	5.17	5	105	103	66-127	1.90	30
Xylenes, Total	14.7	14.2	15	98	95	53-131	3.36	30
<b>Surrogate Recovery</b>								
Dibromofluoromethane	12.5	12.4	12.5	100	100	83-124	0	30
Toluene-d8	12.7	12.8	12.5	102	103	80-120	0.975	30
4-BFB	1.04	1.06	1.25	83	85	70-129	1.39	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1701D41

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

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

Email: jasmith@aeiconsultants.com  
cc/3rd Party:  
PO:  
ProjectNo: 261829; Foothill Square

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 01/31/2017**

**Date Logged: 01/31/2017**

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	
1701D41-001	SSD INF	Air	1/31/2017 12:50	<input type="checkbox"/>	A	A											
1701D41-002	SVE-1 INF	Air	1/31/2017 12:55	<input type="checkbox"/>	A	A											

**Test Legend:**

1	8260B_A	2	8260B_A(UG/M3)	3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Agustina Venegas**

The following SamplIDs: 001A, 002A contain testgroup 8260B\_A.

**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.



### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** 261829; Foothill Square

**Work Order:** 1701D41

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 1/31/2017

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
1701D41-001A	SSD INF	Air	VOCs by PT & GCMS	1	Tedlar	<input type="checkbox"/>	1/31/2017 12:50	5 days		<input type="checkbox"/>	
1701D41-002A	SVE-1 INF	Air	VOCs by PT & GCMS	1	Tedlar	<input type="checkbox"/>	1/31/2017 12:55	5 days		<input type="checkbox"/>	

**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.

1701D41

**McCAMPBELL ANALYTICAL INC.**  
 1534 Willow Pass Road  
 Pittsburg, CA 94565  
 Telephone: (925) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**  RUSH  24 HR  48 HR  72 HR  5 DAY  
 EDF Required?  Yes  No

Report To: Jeremy Smith Bill To: same P.O. #  
 Company: AEI Consultants  
 2500 Camino Diablo  
 Walnut Creek, CA 94597 E-Mail: jasmith@aeiconsultants.com  
 Tele: (925) 746-6000 Fax: (925) 746-6099  
 Project #: 261829 Project Name: Foothill Square  
 Project Location: 10700 MacArthur Blvd, Oakland, CA  
 Sampler Signature: *Nate Bjork*

Analysis Request										Other	Comments	
BTEX & TPH as Gas (602/8020 + 8015)/MTBE												
TPH as Diesel (8015) w/silica Gel Cleanup												
Total Petroleum Oil & Grease (5520 E&F/B&F)												
Total Petroleum Hydrocarbons (418.1)												
HVOCs EPA 8260												
BTEX ONLY (EPA 602 / 8020)												
EPA 608 / 8080												
EPA 608 / 8080 PCB's ONLY												
EPA 624 / 8260												
EPA 625 / 8270												
PAH's / PNA's by EPA 625 / 8270 / 8310												
CAM-17 Metals												
LUFT 5 Metals												
Lead (7240/7421/239.2/6010)												
RCI												

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED						
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other			
SSD INF		1/31	1250	1	Tealor		X										
SVE-1 INF		1/31	1255	1	Tealor		X										

Relinquished By: *Nate Bjork* Date: 1/31 Time: 12:40 Received By: *[Signature]*  
 Relinquished By: Date: Time: Received By:  
 Relinquished By: Date: Time: Received By:

ICE/t° \_\_\_\_\_ PRESERVATION \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_ APPROPRIATE \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_ CONTAINERS \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_ PERSERVED IN LAB \_\_\_\_\_  
 VOAS O&G METALS OTHER





### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **261829; Foothill Square**  
 WorkOrder No: **1701D41** Matrix: Air  
 Carrier: Client Drop-In

Date and Time Received: **1/31/2017 14:40**  
 Date Logged: **1/31/2017**  
 Received by: Agustina Venegas  
 Logged by: Agustina Venegas

**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

**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: 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

**UCMR3 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:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702B78

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 126868

**Project Name:** 365948; Foothill Square

**Project Received:** 02/23/2017

Analytical Report reviewed & approved for release on 03/01/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; Foothill Square  
**WorkOrder:** 1702B78

### 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
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)

### Analytical Qualifiers

H samples were analyzed out of holding time



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; Foothill Square  
**WorkOrder:** 1702B78

### Quality Control Qualifiers

F2 LCS/LCSD recovery and/or RPD is out of acceptance criteria.



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 2/23/17 13:10  
**Date Prepared:** 2/24/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Halogenated Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1702B78-001A	Air	02/23/2017 11:50	GC18	134729

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	0.25	1	02/24/2017 21:17
Bromochloromethane	ND	H	0.25	1	02/24/2017 21:17
Bromodichloromethane	ND	H	0.25	1	02/24/2017 21:17
Bromoform	ND	H	0.25	1	02/24/2017 21:17
Bromomethane	ND	H	0.25	1	02/24/2017 21:17
Carbon Tetrachloride	ND	H	0.25	1	02/24/2017 21:17
Chlorobenzene	ND	H	0.25	1	02/24/2017 21:17
Chloroethane	ND	H	0.25	1	02/24/2017 21:17
Chloroform	ND	H	0.25	1	02/24/2017 21:17
Chloromethane	ND	H	0.25	1	02/24/2017 21:17
2-Chlorotoluene	ND	H	0.25	1	02/24/2017 21:17
4-Chlorotoluene	ND	H	0.25	1	02/24/2017 21:17
Dibromochloromethane	ND	H	0.25	1	02/24/2017 21:17
1,2-Dibromo-3-chloropropane	ND	H	0.25	1	02/24/2017 21:17
1,2-Dibromoethane (EDB)	ND	H	0.25	1	02/24/2017 21:17
Dibromomethane	ND	H	0.25	1	02/24/2017 21:17
1,2-Dichlorobenzene	ND	H	0.25	1	02/24/2017 21:17
1,3-Dichlorobenzene	ND	H	0.25	1	02/24/2017 21:17
1,4-Dichlorobenzene	ND	H	0.25	1	02/24/2017 21:17
Dichlorodifluoromethane	ND	H	0.25	1	02/24/2017 21:17
1,1-Dichloroethane	ND	H	0.25	1	02/24/2017 21:17
1,2-Dichloroethane (1,2-DCA)	ND	H	0.25	1	02/24/2017 21:17
1,1-Dichloroethene	ND	H	0.25	1	02/24/2017 21:17
cis-1,2-Dichloroethene	<b>0.27</b>	H	0.25	1	02/24/2017 21:17
trans-1,2-Dichloroethene	ND	H	0.25	1	02/24/2017 21:17
1,2-Dichloropropane	ND	H	0.25	1	02/24/2017 21:17
1,3-Dichloropropane	ND	H	0.25	1	02/24/2017 21:17
2,2-Dichloropropane	ND	H	0.25	1	02/24/2017 21:17
1,1-Dichloropropene	ND	H	0.25	1	02/24/2017 21:17
cis-1,3-Dichloropropene	ND	H	0.25	1	02/24/2017 21:17
trans-1,3-Dichloropropene	ND	H	0.25	1	02/24/2017 21:17
Freon 113	ND	H	5.0	1	02/24/2017 21:17
Hexachlorobutadiene	ND	H	0.25	1	02/24/2017 21:17
Hexachloroethane	ND	H	0.25	1	02/24/2017 21:17
Methylene chloride	ND	H	0.25	1	02/24/2017 21:17
1,1,1,2-Tetrachloroethane	ND	H	0.25	1	02/24/2017 21:17
1,1,1,2,2-Tetrachloroethane	ND	H	0.25	1	02/24/2017 21:17

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 2/23/17 13:10  
**Date Prepared:** 2/24/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Halogenated Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1702B78-001A	Air	02/23/2017 11:50	GC18	134729

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	3.1	H	0.25	1	02/24/2017 21:17
1,2,3-Trichlorobenzene	ND	H	0.25	1	02/24/2017 21:17
1,2,4-Trichlorobenzene	ND	H	0.25	1	02/24/2017 21:17
1,1,1-Trichloroethane	ND	H	0.25	1	02/24/2017 21:17
1,1,2-Trichloroethane	ND	H	0.25	1	02/24/2017 21:17
Trichloroethene	0.45	H	0.25	1	02/24/2017 21:17
Trichlorofluoromethane	ND	H	0.25	1	02/24/2017 21:17
1,2,3-Trichloropropane	ND	H	0.25	1	02/24/2017 21:17
Vinyl Chloride	ND	H	0.25	1	02/24/2017 21:17

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	97	H	70-130	02/24/2017 21:17
Toluene-d8	99	H	70-130	02/24/2017 21:17
4-BFB	104	H	70-130	02/24/2017 21:17

**Analyst(s):** HK



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 2/23/17 13:10  
**Date Prepared:** 2/24/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1702B78-001A	Air	02/23/2017 11:50	GC18	134729
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	02/24/2017 21:17
Bromochloromethane	ND	H	250	1	02/24/2017 21:17
Bromodichloromethane	ND	H	250	1	02/24/2017 21:17
Bromoform	ND	H	250	1	02/24/2017 21:17
Bromomethane	ND	H	250	1	02/24/2017 21:17
Carbon Tetrachloride	ND	H	250	1	02/24/2017 21:17
Chlorobenzene	ND	H	250	1	02/24/2017 21:17
Chloroethane	ND	H	250	1	02/24/2017 21:17
Chloroform	ND	H	250	1	02/24/2017 21:17
Chloromethane	ND	H	250	1	02/24/2017 21:17
2-Chlorotoluene	ND	H	250	1	02/24/2017 21:17
4-Chlorotoluene	ND	H	250	1	02/24/2017 21:17
Dibromochloromethane	ND	H	250	1	02/24/2017 21:17
1,2-Dibromo-3-chloropropane	ND	H	250	1	02/24/2017 21:17
1,2-Dibromoethane (EDB)	ND	H	250	1	02/24/2017 21:17
Dibromomethane	ND	H	250	1	02/24/2017 21:17
1,2-Dichlorobenzene	ND	H	250	1	02/24/2017 21:17
1,3-Dichlorobenzene	ND	H	250	1	02/24/2017 21:17
1,4-Dichlorobenzene	ND	H	250	1	02/24/2017 21:17
Dichlorodifluoromethane	ND	H	250	1	02/24/2017 21:17
1,1-Dichloroethane	ND	H	250	1	02/24/2017 21:17
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	02/24/2017 21:17
1,1-Dichloroethene	ND	H	250	1	02/24/2017 21:17
cis-1,2-Dichloroethene	<b>270</b>	H	250	1	02/24/2017 21:17
trans-1,2-Dichloroethene	ND	H	250	1	02/24/2017 21:17
1,2-Dichloropropane	ND	H	250	1	02/24/2017 21:17
1,3-Dichloropropane	ND	H	250	1	02/24/2017 21:17
2,2-Dichloropropane	ND	H	250	1	02/24/2017 21:17
1,1-Dichloropropene	ND	H	250	1	02/24/2017 21:17
cis-1,3-Dichloropropene	ND	H	250	1	02/24/2017 21:17
trans-1,3-Dichloropropene	ND	H	250	1	02/24/2017 21:17
Freon 113	ND	H	5000	1	02/24/2017 21:17
Hexachlorobutadiene	ND	H	250	1	02/24/2017 21:17
Hexachloroethane	ND	H	250	1	02/24/2017 21:17
Methylene chloride	ND	H	250	1	02/24/2017 21:17
1,1,1,2-Tetrachloroethane	ND	H	250	1	02/24/2017 21:17
1,1,2,2-Tetrachloroethane	ND	H	250	1	02/24/2017 21:17

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 2/23/17 13:10  
**Date Prepared:** 2/24/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1702B78-001A	Air	02/23/2017 11:50	GC18	134729

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	<b>3100</b>	H	250	1	02/24/2017 21:17
1,2,3-Trichlorobenzene	ND	H	250	1	02/24/2017 21:17
1,2,4-Trichlorobenzene	ND	H	250	1	02/24/2017 21:17
1,1,1-Trichloroethane	ND	H	250	1	02/24/2017 21:17
1,1,2-Trichloroethane	ND	H	250	1	02/24/2017 21:17
Trichloroethene	<b>450</b>	H	250	1	02/24/2017 21:17
Trichlorofluoromethane	ND	H	250	1	02/24/2017 21:17
1,2,3-Trichloropropane	ND	H	250	1	02/24/2017 21:17
Vinyl Chloride	ND	H	250	1	02/24/2017 21:17

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	97	H	70-130	02/24/2017 21:17
Toluene-d8	99	H	70-130	02/24/2017 21:17
4-BFB	104	H	70-130	02/24/2017 21:17

**Analyst(s):** HK





## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	0.25	-	-	-
Bromochloromethane	ND	0.25	-	-	-
Bromodichloromethane	ND	0.25	-	-	-
Bromoform	ND	0.25	-	-	-
Bromomethane	ND	0.25	-	-	-
Carbon Tetrachloride	ND	0.25	-	-	-
Chlorobenzene	ND	0.25	-	-	-
Chloroethane	ND	0.25	-	-	-
Chloroform	ND	0.25	-	-	-
Chloromethane	ND	0.25	-	-	-
2-Chlorotoluene	ND	0.25	-	-	-
4-Chlorotoluene	ND	0.25	-	-	-
Dibromochloromethane	ND	0.25	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.25	-	-	-
1,2-Dibromoethane (EDB)	ND	0.25	-	-	-
Dibromomethane	ND	0.25	-	-	-
1,2-Dichlorobenzene	ND	0.25	-	-	-
1,3-Dichlorobenzene	ND	0.25	-	-	-
1,4-Dichlorobenzene	ND	0.25	-	-	-
Dichlorodifluoromethane	ND	0.25	-	-	-
1,1-Dichloroethane	ND	0.25	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.25	-	-	-
1,1-Dichloroethene	ND	0.25	-	-	-
cis-1,2-Dichloroethene	ND	0.25	-	-	-
trans-1,2-Dichloroethene	ND	0.25	-	-	-
1,2-Dichloropropane	ND	0.25	-	-	-
1,3-Dichloropropane	ND	0.25	-	-	-
2,2-Dichloropropane	ND	0.25	-	-	-
1,1-Dichloropropene	ND	0.25	-	-	-
cis-1,3-Dichloropropene	ND	0.25	-	-	-
trans-1,3-Dichloropropene	ND	0.25	-	-	-
Freon 113	ND	5.0	-	-	-
Hexachlorobutadiene	ND	0.25	-	-	-
Hexachloroethane	ND	0.25	-	-	-
Methylene chloride	ND	0.25	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.25	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.25	-	-	-
Tetrachloroethene	ND	0.25	-	-	-
1,2,3-Trichlorobenzene	ND	0.25	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	0.25	-	-	-
1,1,1-Trichloroethane	ND	0.25	-	-	-
1,1,2-Trichloroethane	ND	0.25	-	-	-
Trichloroethene	ND	0.25	-	-	-
Trichlorofluoromethane	ND	0.25	-	-	-
1,2,3-Trichloropropane	ND	0.25	-	-	-
Vinyl Chloride	ND	0.25	-	-	-
<b>Surrogate Recovery</b>					
Dibromofluoromethane	12.15		12.5	97	70-130
Toluene-d8	11.97		12.5	96	70-130
4-BFB	1.226		1.25	98	70-130



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Bromobenzene	4.29	4.36	5	86	87	55-119	1.62	30
Bromochloromethane	5.16	5.16	5	103	103	60-126	0	30
Bromodichloromethane	5.15	5.17	5	103	103	53-138	0	30
Bromoform	2.57	2.57	5	51	51	47-114	0	30
Bromomethane	7.56	7.94	5	151	159	54-169	4.95	30
Carbon Tetrachloride	5.60	5.56	5	112	111	64-132	0.801	30
Chlorobenzene	4.90	4.86	5	98	97	69-112	0.812	30
Chloroethane	4.54	4.53	5	91	91	58-133	0	30
Chloroform	5.32	5.29	5	106	106	73-122	0	30
Chloromethane	6.72	6.83	5	134	137	51-149	1.58	30
2-Chlorotoluene	4.31	4.41	5	86	88	65-114	2.21	30
4-Chlorotoluene	4.26	4.37	5	85	87	63-114	2.43	30
Dibromochloromethane	4.02	3.99	5	80	80	42-122	0	30
1,2-Dibromo-3-chloropropane	1.06	1.05	2	53	53	34-99	0	30
1,2-Dibromoethane (EDB)	4.49	4.47	5	90	89	62-117	0.560	30
Dibromomethane	4.87	4.91	5	97	98	66-127	0.817	30
1,2-Dichlorobenzene	4.34	4.33	5	87	87	56-105	0	30
1,3-Dichlorobenzene	4.32	4.31	5	86	86	63-108	0	30
1,4-Dichlorobenzene	4.23	4.25	5	85	85	63-103	0	30
Dichlorodifluoromethane	6.30	6.47	5	126	129	43-165	2.69	30
1,1-Dichloroethane	5.57	5.53	5	111	111	70-124	0	30
1,2-Dichloroethane (1,2-DCA)	4.91	4.90	5	98	98	61-126	0	30
1,1-Dichloroethene	4.98	5.00	5	100	100	67-122	0	30
cis-1,2-Dichloroethene	5.35	5.34	5	107	107	69-124	0	30
trans-1,2-Dichloroethene	5.41	5.40	5	108	108	69-125	0	30
1,2-Dichloropropane	5.24	5.22	5	105	104	70-121	0.528	30
1,3-Dichloropropane	4.75	4.69	5	95	94	63-116	1.43	30
2,2-Dichloropropane	5.99	5.95	5	120	119	67-140	0.604	30
1,1-Dichloropropene	5.51	5.48	5	110	110	66-124	0	30
cis-1,3-Dichloropropene	4.93	4.86	5	99	97	69-116	1.51	30
trans-1,3-Dichloropropene	4.38	4.30	5	88	86	64-120	1.95	30
Freon 113	-	-	0	F2	-	-	-	-
Hexachlorobutadiene	3.56	3.56	5	71	71	38-111	0	30
Hexachloroethane	3.54	3.56	5	71	71	35-104	0	30
Methylene chloride	4.91	4.92	5	98	98	63-117	0	30
1,1,1,2-Tetrachloroethane	4.88	4.86	5	98	97	59-124	0.422	30
1,1,1,2,2-Tetrachloroethane	4.01	4.05	5	80	81	55-108	0.957	30
Tetrachloroethene	5.49	5.40	5	110	108	56-131	1.70	30
1,2,3-Trichlorobenzene	2.30	2.25	5	46	45	36-92	2.10	30

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	3.44	3.33	5	69	67	40-97	2.98	30
1,1,1-Trichloroethane	5.59	5.56	5	112	111	67-132	0.530	30
1,1,2-Trichloroethane	4.59	4.50	5	92	90	62-116	1.98	30
Trichloroethene	5.32	5.28	5	106	106	66-127	0	30
Trichlorofluoromethane	4.94	4.95	5	99	99	63-123	0	30
1,2,3-Trichloropropane	3.55	3.57	5	71	71	54-112	0	30
Vinyl Chloride	5.71	5.68	5	114	114	58-162	0	30
<b>Surrogate Recovery</b>								
Dibromofluoromethane	12.2	12.2	12.5	97	98	83-124	0.694	30
Toluene-d8	12.1	11.8	12.5	97	95	80-120	1.94	30
4-BFB	1.27	1.29	1.25	101	103	70-129	2.04	30



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
tert-Amyl methyl ether (TAME)	ND	250	-	-	-
Benzene	ND	250	-	-	-
Bromobenzene	ND	250	-	-	-
Bromochloromethane	ND	250	-	-	-
Bromodichloromethane	ND	250	-	-	-
Bromoform	ND	250	-	-	-
Bromomethane	ND	250	-	-	-
t-Butyl alcohol (TBA)	ND	2500	-	-	-
n-Butyl benzene	ND	250	-	-	-
sec-Butyl benzene	ND	250	-	-	-
tert-Butyl benzene	ND	250	-	-	-
Carbon Disulfide	ND	250	-	-	-
Carbon Tetrachloride	ND	250	-	-	-
Chlorobenzene	ND	250	-	-	-
Chloroethane	ND	250	-	-	-
Chloroform	ND	250	-	-	-
Chloromethane	ND	250	-	-	-
2-Chlorotoluene	ND	250	-	-	-
4-Chlorotoluene	ND	250	-	-	-
Dibromochloromethane	ND	250	-	-	-
1,2-Dibromo-3-chloropropane	ND	250	-	-	-
1,2-Dibromoethane (EDB)	ND	250	-	-	-
Dibromomethane	ND	250	-	-	-
1,2-Dichlorobenzene	ND	250	-	-	-
1,3-Dichlorobenzene	ND	250	-	-	-
1,4-Dichlorobenzene	ND	250	-	-	-
Dichlorodifluoromethane	ND	250	-	-	-
1,1-Dichloroethane	ND	250	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	250	-	-	-
1,1-Dichloroethene	ND	250	-	-	-
cis-1,2-Dichloroethene	ND	250	-	-	-
trans-1,2-Dichloroethene	ND	250	-	-	-
1,2-Dichloropropane	ND	250	-	-	-
1,3-Dichloropropane	ND	250	-	-	-
2,2-Dichloropropane	ND	250	-	-	-
1,1-Dichloropropene	ND	250	-	-	-
cis-1,3-Dichloropropene	ND	250	-	-	-
trans-1,3-Dichloropropene	ND	250	-	-	-
Diisopropyl ether (DIPE)	ND	250	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Ethylbenzene	ND	250	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	250	-	-	-
Freon 113	ND	5000	-	-	-
Hexachlorobutadiene	ND	250	-	-	-
Hexachloroethane	ND	250	-	-	-
2-Hexanone	ND	250	-	-	-
Isopropylbenzene	ND	250	-	-	-
4-Isopropyl toluene	ND	250	-	-	-
Methyl-t-butyl ether (MTBE)	ND	250	-	-	-
Methylene chloride	ND	250	-	-	-
n-Propyl benzene	ND	250	-	-	-
Styrene	ND	250	-	-	-
1,1,1,2-Tetrachloroethane	ND	250	-	-	-
1,1,2,2-Tetrachloroethane	ND	250	-	-	-
Tetrachloroethene	ND	250	-	-	-
Toluene	ND	250	-	-	-
1,2,3-Trichlorobenzene	ND	250	-	-	-
1,2,4-Trichlorobenzene	ND	250	-	-	-
1,1,1-Trichloroethane	ND	250	-	-	-
1,1,2-Trichloroethane	ND	250	-	-	-
Trichloroethene	ND	250	-	-	-
Trichlorofluoromethane	ND	250	-	-	-
1,2,3-Trichloropropane	ND	250	-	-	-
1,2,4-Trimethylbenzene	ND	250	-	-	-
1,3,5-Trimethylbenzene	ND	250	-	-	-
Vinyl Chloride	ND	250	-	-	-
Xylenes, Total	ND	250	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	12150		12500	97	70-130
Toluene-d8	11970		12500	96	70-130
4-BFB	1226		1250	98	70-130



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 2/24/17  
**Date Analyzed:** 2/24/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1702B78  
**BatchID:** 134729  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-134729

### QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chlorobenzene	4900	4860	5000	98	97	60-140	0.812	30
1,2-Dibromoethane (EDB)	4490	4470	5000	90	89	60-140	0.560	30
1,2-Dichloroethane (1,2-DCA)	4910	4900	5000	98	98	60-140	0	30
1,1-Dichloroethene	4980	5000	5000	100	100	60-140	0	30
Trichloroethene	5320	5280	5000	106	106	60-140	0	30
<b>Surrogate Recovery</b>								
Dibromofluoromethane	12,200	12,200	12500	97	98	60-140	0.694	30
Toluene-d8	12,100	11,800	12500	97	95	60-140	1.94	30
4-BFB	1270	1290	1250	101	103	60-140	2.04	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1702B78

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

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

Email: jasmith@aeiconsultants.com  
 cc/3rd Party:  
 PO: 126868  
 ProjectNo: 365948; Foothill Square

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

**Requested TAT: 5 days;**  
  
**Date Received: 02/23/2017**  
**Date Logged: 02/23/2017**

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	
1702B78-001	SSD INF	Air	2/23/2017 11:50	<input type="checkbox"/>	A	A											

**Test Legend:**

1	8010_A	2	8010_A(UG/M3)	3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.





### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** 365948; Foothill Square

**Work Order:** 1702B78

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 2/23/2017

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
1702B78-001A	SSD INF	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	2/23/2017 11:50	5 days		<input type="checkbox"/>	

**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.





### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **365948; Foothill Square**  
 WorkOrder No: **1702B78** Matrix: Air  
 Carrier: Client Drop-In

Date and Time Received: **2/23/2017 13:10**  
 Date Logged: **2/23/2017**  
 Received by: Jena Alfaro  
 Logged by: Jena Alfaro

**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

**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: 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

**UCMR3 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:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1703H07

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 129268

**Project Name:** Foothill Square

**Project Received:** 03/31/2017

Analytical Report reviewed & approved for release on 04/06/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** Foothill Square  
**WorkOrder:** 1703H07

### 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
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)

### Analytical Qualifiers

H samples were analyzed out of holding time



# Analytical Report

**Client:** AEI Consultants  
**Date Received:** 3/31/17 19:30  
**Date Prepared:** 4/1/17  
**Project:** Foothill Square

**WorkOrder:** 1703H07  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1703H07-001A	Air	03/31/2017 15:08	GC28	136633

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	04/01/2017 14:56
Bromochloromethane	ND	H	250	1	04/01/2017 14:56
Bromodichloromethane	ND	H	250	1	04/01/2017 14:56
Bromoform	ND	H	250	1	04/01/2017 14:56
Bromomethane	ND	H	250	1	04/01/2017 14:56
Carbon Tetrachloride	ND	H	250	1	04/01/2017 14:56
Chlorobenzene	ND	H	250	1	04/01/2017 14:56
Chloroethane	ND	H	250	1	04/01/2017 14:56
Chloroform	ND	H	250	1	04/01/2017 14:56
Chloromethane	ND	H	250	1	04/01/2017 14:56
2-Chlorotoluene	ND	H	250	1	04/01/2017 14:56
4-Chlorotoluene	ND	H	250	1	04/01/2017 14:56
Dibromochloromethane	ND	H	250	1	04/01/2017 14:56
1,2-Dibromo-3-chloropropane	ND	H	250	1	04/01/2017 14:56
1,2-Dibromoethane (EDB)	ND	H	250	1	04/01/2017 14:56
Dibromomethane	ND	H	250	1	04/01/2017 14:56
1,2-Dichlorobenzene	ND	H	250	1	04/01/2017 14:56
1,3-Dichlorobenzene	ND	H	250	1	04/01/2017 14:56
1,4-Dichlorobenzene	ND	H	250	1	04/01/2017 14:56
Dichlorodifluoromethane	ND	H	250	1	04/01/2017 14:56
1,1-Dichloroethane	ND	H	250	1	04/01/2017 14:56
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	04/01/2017 14:56
1,1-Dichloroethene	ND	H	250	1	04/01/2017 14:56
cis-1,2-Dichloroethene	ND	H	250	1	04/01/2017 14:56
trans-1,2-Dichloroethene	ND	H	250	1	04/01/2017 14:56
1,2-Dichloropropane	ND	H	250	1	04/01/2017 14:56
1,3-Dichloropropane	ND	H	250	1	04/01/2017 14:56
2,2-Dichloropropane	ND	H	250	1	04/01/2017 14:56
1,1-Dichloropropene	ND	H	250	1	04/01/2017 14:56
cis-1,3-Dichloropropene	ND	H	250	1	04/01/2017 14:56
trans-1,3-Dichloropropene	ND	H	250	1	04/01/2017 14:56
Freon 113	ND	H	5000	1	04/01/2017 14:56
Hexachlorobutadiene	ND	H	250	1	04/01/2017 14:56
Hexachloroethane	ND	H	250	1	04/01/2017 14:56
Methylene chloride	ND	H	250	1	04/01/2017 14:56
1,1,1,2-Tetrachloroethane	ND	H	250	1	04/01/2017 14:56
1,1,2,2-Tetrachloroethane	ND	H	250	1	04/01/2017 14:56

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 3/31/17 19:30  
**Date Prepared:** 4/1/17  
**Project:** Foothill Square

**WorkOrder:** 1703H07  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1703H07-001A	Air	03/31/2017 15:08	GC28	136633

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	<b>1700</b>	H	250	1	04/01/2017 14:56
1,2,3-Trichlorobenzene	ND	H	250	1	04/01/2017 14:56
1,2,4-Trichlorobenzene	ND	H	250	1	04/01/2017 14:56
1,1,1-Trichloroethane	ND	H	250	1	04/01/2017 14:56
1,1,2-Trichloroethane	ND	H	250	1	04/01/2017 14:56
Trichloroethene	<b>310</b>	H	250	1	04/01/2017 14:56
Trichlorofluoromethane	ND	H	250	1	04/01/2017 14:56
1,2,3-Trichloropropane	ND	H	250	1	04/01/2017 14:56
Vinyl Chloride	ND	H	250	1	04/01/2017 14:56

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	97	H	70-130	04/01/2017 14:56
Toluene-d8	106	H	70-130	04/01/2017 14:56
4-BFB	74	H	70-130	04/01/2017 14:56

Analyst(s): HK



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 4/1/17  
**Date Analyzed:** 4/1/17  
**Instrument:** GC28  
**Matrix:** Air  
**Project:** Foothill Square

**WorkOrder:** 1703H07  
**BatchID:** 136633  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB-136633

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	250	-	-	-
Bromochloromethane	ND	250	-	-	-
Bromodichloromethane	ND	250	-	-	-
Bromoform	ND	250	-	-	-
Bromomethane	ND	250	-	-	-
Carbon Tetrachloride	ND	250	-	-	-
Chlorobenzene	ND	250	-	-	-
Chloroethane	ND	250	-	-	-
Chloroform	ND	250	-	-	-
Chloromethane	ND	250	-	-	-
2-Chlorotoluene	ND	250	-	-	-
4-Chlorotoluene	ND	250	-	-	-
Dibromochloromethane	ND	250	-	-	-
1,2-Dibromo-3-chloropropane	ND	250	-	-	-
1,2-Dibromoethane (EDB)	ND	250	-	-	-
Dibromomethane	ND	250	-	-	-
1,2-Dichlorobenzene	ND	250	-	-	-
1,3-Dichlorobenzene	ND	250	-	-	-
1,4-Dichlorobenzene	ND	250	-	-	-
Dichlorodifluoromethane	ND	250	-	-	-
1,1-Dichloroethane	ND	250	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	250	-	-	-
1,1-Dichloroethene	ND	250	-	-	-
cis-1,2-Dichloroethene	ND	250	-	-	-
trans-1,2-Dichloroethene	ND	250	-	-	-
1,2-Dichloropropane	ND	250	-	-	-
1,3-Dichloropropane	ND	250	-	-	-
2,2-Dichloropropane	ND	250	-	-	-
1,1-Dichloropropene	ND	250	-	-	-
cis-1,3-Dichloropropene	ND	250	-	-	-
trans-1,3-Dichloropropene	ND	250	-	-	-
Freon 113	ND	5000	-	-	-
Hexachlorobutadiene	ND	250	-	-	-
Hexachloroethane	ND	250	-	-	-
Methylene chloride	ND	250	-	-	-
1,1,1,2-Tetrachloroethane	ND	250	-	-	-
1,1,1,2,2-Tetrachloroethane	ND	250	-	-	-
Tetrachloroethene	ND	250	-	-	-
1,2,3-Trichlorobenzene	ND	250	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer





## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 4/1/17  
**Date Analyzed:** 4/1/17  
**Instrument:** GC28  
**Matrix:** Air  
**Project:** Foothill Square

**WorkOrder:** 1703H07  
**BatchID:** 136633  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB-136633

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	250	-	-	-
1,1,1-Trichloroethane	ND	250	-	-	-
1,1,2-Trichloroethane	ND	250	-	-	-
Trichloroethene	ND	250	-	-	-
Trichlorofluoromethane	ND	250	-	-	-
1,2,3-Trichloropropane	ND	250	-	-	-
Vinyl Chloride	ND	250	-	-	-
<b>Surrogate Recovery</b>					
Dibromofluoromethane	12260		12500	98	70-130
Toluene-d8	13420		12500	107	70-130
4-BFB	957.4		1250	77	70-130



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1703H07

ClientCode: AEL

WaterTrax    WriteOn    EDF    Excel    EQUIS    Email    HardCopy    ThirdParty    J-flag

**Report to:**

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

Email: jasmith@aeiconsultants.com  
 cc/3rd Party:  
 PO: 129268  
 ProjectNo: Foothill Square

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 03/31/2017**

**Date Logged: 03/31/2017**

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	
1703H07-001	SSD INF	Air	3/31/2017 15:08	<input type="checkbox"/>	A												

**Test Legend:**

1	8010_A(UG/M3)	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Briana Cutino**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.



### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** Foothill Square

**Work Order:** 1703H07

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 3/31/2017

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
1703H07-001A	SSD INF	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	3/31/2017 15:08	5 days		<input type="checkbox"/>	

**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.

**McCAMPBELL ANALYTICAL, INC.**  
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269  
[www.mccampbell.com](http://www.mccampbell.com) [main@mccampbell.com](mailto:main@mccampbell.com)

<b>CHAIN OF CUSTODY RECORD</b>			
Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD <input checked="" type="radio"/> Quote #
J-Flag / MDL	ESL	Cleanup Approved	Bottle Order #
Delivery Format: GeoTracker EDF	<input checked="" type="radio"/> PDF	EDD	Write On (DW) EQuIS

Report To: Jeremy Smith      Bill To: AEI Consultants  
 Company: AEI Consultants  
 Email: JASmith@aeiconsultants.com  
 Alt Email:      Tele: 925-746-6000  
 Project Name/ #: Foothill Square  
 Project Location: 10700 MacArthur Boulevard, Oakland, CA PO # 129268  
 Sampler Signature: *[Signature]*

**Analysis Requested**

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	
	Date	Time																		
SSD INF	3/31/2017	15:08	1	Air	N/A															

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.						Comments / Instructions
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.						
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	
<i>[Signature]</i>	3/31/17	1845	<i>[Signature]</i>	3/31/17	1845	
	3/31/17	1930		3/31	1930	

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<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=ZnOAc/NaOH 7=None      Temp \_\_\_\_\_ °C      Initials \_\_\_\_\_



### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **Foothill Square**

Date and Time Received: **3/31/2017 19:30**  
 Date Logged: **3/31/2017**  
 Received by: **Briana Cutino**  
 Logged by: **Briana Cutino**

WorkOrder No: **1703H07** Matrix: Air  
 Carrier: Benjamin Yslas (MAI Courier)

#### 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

#### 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: 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

#### UCMR3 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: Method SW8260B (HVOCs List) was received past its 0.25-day holding time.



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1705D13

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 133753

**Project Name:** 365948; Foothill Square; 10700 MacArthur Blvd.  
Oakland, CA

**Project Received:** 05/31/2017

Analytical Report reviewed & approved for release on 06/06/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; Foothill Square; 10700 MacArthur Blvd. Oakland, CA  
**WorkOrder:** 1705D13

### 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)

### Analytical Qualifiers

H Samples were analyzed out of holding time



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 5/31/17 16:10  
**Date Prepared:** 6/2/17  
**Project:** 365948; Foothill Square; 10700 MacArthur Blvd.  
 Oakland, CA

**WorkOrder:** 1705D13  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD-INF	1705D13-001A	Air	05/31/2017 13:39	GC18	139896
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	06/02/2017 17:22
Bromochloromethane	ND	H	250	1	06/02/2017 17:22
Bromodichloromethane	ND	H	250	1	06/02/2017 17:22
Bromoform	ND	H	250	1	06/02/2017 17:22
Bromomethane	ND	H	250	1	06/02/2017 17:22
Carbon Tetrachloride	ND	H	250	1	06/02/2017 17:22
Chlorobenzene	ND	H	250	1	06/02/2017 17:22
Chloroethane	ND	H	250	1	06/02/2017 17:22
Chloroform	ND	H	250	1	06/02/2017 17:22
Chloromethane	ND	H	250	1	06/02/2017 17:22
2-Chlorotoluene	ND	H	250	1	06/02/2017 17:22
4-Chlorotoluene	ND	H	250	1	06/02/2017 17:22
Dibromochloromethane	ND	H	250	1	06/02/2017 17:22
1,2-Dibromo-3-chloropropane	ND	H	250	1	06/02/2017 17:22
1,2-Dibromoethane (EDB)	ND	H	250	1	06/02/2017 17:22
Dibromomethane	ND	H	250	1	06/02/2017 17:22
1,2-Dichlorobenzene	ND	H	250	1	06/02/2017 17:22
1,3-Dichlorobenzene	ND	H	250	1	06/02/2017 17:22
1,4-Dichlorobenzene	ND	H	250	1	06/02/2017 17:22
Dichlorodifluoromethane	ND	H	250	1	06/02/2017 17:22
1,1-Dichloroethane	ND	H	250	1	06/02/2017 17:22
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	06/02/2017 17:22
1,1-Dichloroethene	ND	H	250	1	06/02/2017 17:22
cis-1,2-Dichloroethene	ND	H	250	1	06/02/2017 17:22
trans-1,2-Dichloroethene	ND	H	250	1	06/02/2017 17:22
1,2-Dichloropropane	ND	H	250	1	06/02/2017 17:22
1,3-Dichloropropane	ND	H	250	1	06/02/2017 17:22
2,2-Dichloropropane	ND	H	250	1	06/02/2017 17:22
1,1-Dichloropropene	ND	H	250	1	06/02/2017 17:22
cis-1,3-Dichloropropene	ND	H	250	1	06/02/2017 17:22
trans-1,3-Dichloropropene	ND	H	250	1	06/02/2017 17:22
Freon 113	ND	H	5000	1	06/02/2017 17:22
Hexachlorobutadiene	ND	H	250	1	06/02/2017 17:22
Hexachloroethane	ND	H	250	1	06/02/2017 17:22
Methylene chloride	ND	H	250	1	06/02/2017 17:22
1,1,1,2-Tetrachloroethane	ND	H	250	1	06/02/2017 17:22
1,1,2,2-Tetrachloroethane	ND	H	250	1	06/02/2017 17:22

(Cont.)





## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 5/31/17 16:10  
**Date Prepared:** 6/2/17  
**Project:** 365948; Foothill Square; 10700 MacArthur Blvd.  
 Oakland, CA

**WorkOrder:** 1705D13  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD-INF	1705D13-001A	Air	05/31/2017 13:39	GC18	139896

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	<b>2000</b>	H	250	1	06/02/2017 17:22
1,2,3-Trichlorobenzene	ND	H	250	1	06/02/2017 17:22
1,2,4-Trichlorobenzene	ND	H	250	1	06/02/2017 17:22
1,1,1-Trichloroethane	ND	H	250	1	06/02/2017 17:22
1,1,2-Trichloroethane	ND	H	250	1	06/02/2017 17:22
Trichloroethene	<b>370</b>	H	250	1	06/02/2017 17:22
Trichlorofluoromethane	ND	H	250	1	06/02/2017 17:22
1,2,3-Trichloropropane	ND	H	250	1	06/02/2017 17:22
Vinyl Chloride	ND	H	250	1	06/02/2017 17:22

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	114	H	70-130	06/02/2017 17:22
Toluene-d8	101	H	70-130	06/02/2017 17:22
4-BFB	109	H	70-130	06/02/2017 17:22

Analyst(s): HK



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1705D13
<b>Date Prepared:</b>	6/2/17	<b>BatchID:</b>	139896
<b>Date Analyzed:</b>	6/2/17	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC18	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Air	<b>Unit:</b>	µg/m <sup>3</sup>
<b>Project:</b>	365948; Foothill Square; 10700 MacArthur Blvd. Oakland, CA	<b>Sample ID:</b>	MB/LCS/LCSD-139896

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	250	-	-	-
Bromochloromethane	ND	250	-	-	-
Bromodichloromethane	ND	250	-	-	-
Bromoform	ND	250	-	-	-
Bromomethane	ND	250	-	-	-
Carbon Tetrachloride	ND	250	-	-	-
Chlorobenzene	ND	250	-	-	-
Chloroethane	ND	250	-	-	-
Chloroform	ND	250	-	-	-
Chloromethane	ND	250	-	-	-
2-Chlorotoluene	ND	250	-	-	-
4-Chlorotoluene	ND	250	-	-	-
Dibromochloromethane	ND	250	-	-	-
1,2-Dibromo-3-chloropropane	ND	250	-	-	-
1,2-Dibromoethane (EDB)	ND	250	-	-	-
Dibromomethane	ND	250	-	-	-
1,2-Dichlorobenzene	ND	250	-	-	-
1,3-Dichlorobenzene	ND	250	-	-	-
1,4-Dichlorobenzene	ND	250	-	-	-
Dichlorodifluoromethane	ND	250	-	-	-
1,1-Dichloroethane	ND	250	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	250	-	-	-
1,1-Dichloroethene	ND	250	-	-	-
cis-1,2-Dichloroethene	ND	250	-	-	-
trans-1,2-Dichloroethene	ND	250	-	-	-
1,2-Dichloropropane	ND	250	-	-	-
1,3-Dichloropropane	ND	250	-	-	-
2,2-Dichloropropane	ND	250	-	-	-
1,1-Dichloropropene	ND	250	-	-	-
cis-1,3-Dichloropropene	ND	250	-	-	-
trans-1,3-Dichloropropene	ND	250	-	-	-
Freon 113	ND	5000	-	-	-
Hexachlorobutadiene	ND	250	-	-	-
Hexachloroethane	ND	250	-	-	-
Methylene chloride	ND	250	-	-	-
1,1,1,2-Tetrachloroethane	ND	250	-	-	-
1,1,2,2-Tetrachloroethane	ND	250	-	-	-
Tetrachloroethene	ND	250	-	-	-
1,2,3-Trichlorobenzene	ND	250	-	-	-

(Cont.)



## Quality Control Report

<b>Client:</b> AEI Consultants	<b>WorkOrder:</b> 1705D13
<b>Date Prepared:</b> 6/2/17	<b>BatchID:</b> 139896
<b>Date Analyzed:</b> 6/2/17	<b>Extraction Method:</b> SW5030B
<b>Instrument:</b> GC18	<b>Analytical Method:</b> SW8260B
<b>Matrix:</b> Air	<b>Unit:</b> µg/m <sup>3</sup>
<b>Project:</b> 365948; Foothill Square; 10700 MacArthur Blvd. Oakland, CA	<b>Sample ID:</b> MB/LCS/LCSD-139896

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	250	-	-	-
1,1,1-Trichloroethane	ND	250	-	-	-
1,1,2-Trichloroethane	ND	250	-	-	-
Trichloroethene	ND	250	-	-	-
Trichlorofluoromethane	ND	250	-	-	-
1,2,3-Trichloropropane	ND	250	-	-	-
Vinyl Chloride	ND	250	-	-	-

**Surrogate Recovery**

Dibromofluoromethane	13900	12500	111	70-130
Toluene-d8	12780	12500	102	70-130
4-BFB	1454	1250	116	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chlorobenzene	4270	4480	5000	85	90	69-112	4.81	30
1,2-Dibromoethane (EDB)	4130	4250	5000	83	85	62-117	2.99	30
1,2-Dichloroethane (1,2-DCA)	4480	4620	5000	90	92	61-126	2.93	30
1,1-Dichloroethene	4760	5050	5000	95	101	67-122	5.87	30
Trichloroethene	4660	4920	5000	93	98	66-127	5.53	30

**Surrogate Recovery**

Dibromofluoromethane	14,000	14,000	12500	112	112	83-124	0	30
Toluene-d8	12,700	12,900	12500	102	103	80-120	1.37	30
4-BFB	1420	1440	1250	114	115	70-129	1.05	30

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1705D13

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 321-3561    FAX: (925) 283-6121

Email: jasmith@aeiconsultants.com  
cc/3rd Party:  
PO: 133753  
ProjectNo: 365948; Foothill Square; 10700 MacArthur Blvd. Oakland, CA

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 05/31/2017**

**Date Logged: 05/31/2017**

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	
1705D13-001	SSD-INF	Air	5/31/2017 13:39	<input type="checkbox"/>	A												

**Test Legend:**

1	8010_A(UG/M3)	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Kena Ponce**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.



### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Client Contact:** Jeremy Smith

**Contact's Email:** jasmith@aeiconsultants.com

**Project:** 365948; Foothill Square; 10700 MacArthur Blvd. Oakland, CA

**Comments:**

**Work Order:** 1705D13

**QC Level:** LEVEL 2

**Date Logged:** 5/31/2017

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
1705D13-001A	SSD-INF	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	5/31/2017 13:39	5 days		<input type="checkbox"/>	

**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.

**McCAMPBELL ANALYTICAL INC.**

1534 Willow Pass Road  
Pittsburg, CA 94565

Telephone: (925) 252-9262

Fax: (925) 252-9269

133753

**CHAIN OF CUSTODY RECORD**

TURN AROUND TIME

RUSH 24 HR  48 HR  72 HR  5 DAY

EDF Required?  Yes  No

1705 D13

Report To: **Jeremy Smith** Bill To: **same** P.O. # **58610**  
 Company: **AEI Consultants**  
 2500 Camino Diablo  
 Walnut Creek, CA 94597 E-Mail: **jasmith@aeiconsultants.com**  
 Tele: (925) 746-6000 Fax: (925) 746-6099  
 Project #: ~~261829~~ **265948** Project Name: **Foothill Square**  
 Project Location: **10700 MacArthur Blvd, Oakland, CA**  
 Sampler Signature: *[Signature]*

Analysis Request										Other	Comments					
BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) w/silica Gel Cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI		
				X												

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other	
<del>INF</del> <b>SSD-INA</b>		5/31	1339	1	TS		X								

Relinquished By: *[Signature]* Date: **5/31** Time: **1010** Received By: *[Signature]*  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/t° \_\_\_\_\_ PRESERVATION \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_ APPROPRIATE \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_ CONTAINERS \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_ PERSERVED IN LAB \_\_\_\_\_

VOAS | O&G | METALS | OTHER



### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **365948; Foothill Square; 10700 MacArthur Blvd. Oakland, CA**  
 WorkOrder No: **1705D13** Matrix: Air  
 Carrier: Client Drop-In

Date and Time Received: **5/31/2017 16:10**  
 Date Logged: **5/31/2017**  
 Received by: **Kena Ponce**  
 Logged by: **Kena Ponce**

#### 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

#### 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: 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

#### UCMR3 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:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1706D82

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 135959

**Project Name:** 365948; Foothill Square

**Project Received:** 06/28/2017

Analytical Report reviewed & approved for release on 07/06/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*







## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; Foothill Square  
**WorkOrder:** 1706D82

### 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)

### Analytical Qualifiers

H Samples were analyzed out of holding time



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 6/28/17 17:20  
**Date Prepared:** 6/29/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1706D82  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD-INF	1706D82-001A	Air	06/28/2017 12:46	GC18	141275
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	06/29/2017 16:04
Bromochloromethane	ND	H	250	1	06/29/2017 16:04
Bromodichloromethane	ND	H	250	1	06/29/2017 16:04
Bromoform	ND	H	250	1	06/29/2017 16:04
Bromomethane	ND	H	250	1	06/29/2017 16:04
Carbon Tetrachloride	ND	H	250	1	06/29/2017 16:04
Chlorobenzene	ND	H	250	1	06/29/2017 16:04
Chloroethane	ND	H	250	1	06/29/2017 16:04
Chloroform	ND	H	250	1	06/29/2017 16:04
Chloromethane	ND	H	250	1	06/29/2017 16:04
2-Chlorotoluene	ND	H	250	1	06/29/2017 16:04
4-Chlorotoluene	ND	H	250	1	06/29/2017 16:04
Dibromochloromethane	ND	H	250	1	06/29/2017 16:04
1,2-Dibromo-3-chloropropane	ND	H	250	1	06/29/2017 16:04
1,2-Dibromoethane (EDB)	ND	H	250	1	06/29/2017 16:04
Dibromomethane	ND	H	250	1	06/29/2017 16:04
1,2-Dichlorobenzene	ND	H	250	1	06/29/2017 16:04
1,3-Dichlorobenzene	ND	H	250	1	06/29/2017 16:04
1,4-Dichlorobenzene	ND	H	250	1	06/29/2017 16:04
Dichlorodifluoromethane	ND	H	250	1	06/29/2017 16:04
1,1-Dichloroethane	ND	H	250	1	06/29/2017 16:04
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	06/29/2017 16:04
1,1-Dichloroethene	ND	H	250	1	06/29/2017 16:04
cis-1,2-Dichloroethene	ND	H	250	1	06/29/2017 16:04
trans-1,2-Dichloroethene	ND	H	250	1	06/29/2017 16:04
1,2-Dichloropropane	ND	H	250	1	06/29/2017 16:04
1,3-Dichloropropane	ND	H	250	1	06/29/2017 16:04
2,2-Dichloropropane	ND	H	250	1	06/29/2017 16:04
1,1-Dichloropropene	ND	H	250	1	06/29/2017 16:04
cis-1,3-Dichloropropene	ND	H	250	1	06/29/2017 16:04
trans-1,3-Dichloropropene	ND	H	250	1	06/29/2017 16:04
Freon 113	ND	H	5000	1	06/29/2017 16:04
Hexachlorobutadiene	ND	H	250	1	06/29/2017 16:04
Hexachloroethane	ND	H	250	1	06/29/2017 16:04
Methylene chloride	ND	H	250	1	06/29/2017 16:04
1,1,1,2-Tetrachloroethane	ND	H	250	1	06/29/2017 16:04
1,1,2,2-Tetrachloroethane	ND	H	250	1	06/29/2017 16:04

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 6/28/17 17:20  
**Date Prepared:** 6/29/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1706D82  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD-INF	1706D82-001A	Air	06/28/2017 12:46	GC18	141275

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	670	H	250	1	06/29/2017 16:04
1,2,3-Trichlorobenzene	ND	H	250	1	06/29/2017 16:04
1,2,4-Trichlorobenzene	ND	H	250	1	06/29/2017 16:04
1,1,1-Trichloroethane	ND	H	250	1	06/29/2017 16:04
1,1,2-Trichloroethane	ND	H	250	1	06/29/2017 16:04
Trichloroethene	ND	H	250	1	06/29/2017 16:04
Trichlorofluoromethane	ND	H	250	1	06/29/2017 16:04
1,2,3-Trichloropropane	ND	H	250	1	06/29/2017 16:04
Vinyl Chloride	ND	H	250	1	06/29/2017 16:04

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	119	H	70-130	06/29/2017 16:04
Toluene-d8	100	H	70-130	06/29/2017 16:04
4-BFB	107	H	70-130	06/29/2017 16:04

**Analyst(s):** JEM



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 6/29/17  
**Date Analyzed:** 6/29/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1706D82  
**BatchID:** 141275  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-141275

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	250	-	-	-
Bromochloromethane	ND	250	-	-	-
Bromodichloromethane	ND	250	-	-	-
Bromoform	ND	250	-	-	-
Bromomethane	ND	250	-	-	-
Carbon Tetrachloride	ND	250	-	-	-
Chlorobenzene	ND	250	-	-	-
Chloroethane	ND	250	-	-	-
Chloroform	ND	250	-	-	-
Chloromethane	ND	250	-	-	-
2-Chlorotoluene	ND	250	-	-	-
4-Chlorotoluene	ND	250	-	-	-
Dibromochloromethane	ND	250	-	-	-
1,2-Dibromo-3-chloropropane	ND	250	-	-	-
1,2-Dibromoethane (EDB)	ND	250	-	-	-
Dibromomethane	ND	250	-	-	-
1,2-Dichlorobenzene	ND	250	-	-	-
1,3-Dichlorobenzene	ND	250	-	-	-
1,4-Dichlorobenzene	ND	250	-	-	-
Dichlorodifluoromethane	ND	250	-	-	-
1,1-Dichloroethane	ND	250	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	250	-	-	-
1,1-Dichloroethene	ND	250	-	-	-
cis-1,2-Dichloroethene	ND	250	-	-	-
trans-1,2-Dichloroethene	ND	250	-	-	-
1,2-Dichloropropane	ND	250	-	-	-
1,3-Dichloropropane	ND	250	-	-	-
2,2-Dichloropropane	ND	250	-	-	-
1,1-Dichloropropene	ND	250	-	-	-
cis-1,3-Dichloropropene	ND	250	-	-	-
trans-1,3-Dichloropropene	ND	250	-	-	-
Freon 113	ND	5000	-	-	-
Hexachlorobutadiene	ND	250	-	-	-
Hexachloroethane	ND	250	-	-	-
Methylene chloride	ND	250	-	-	-
1,1,1,2-Tetrachloroethane	ND	250	-	-	-
1,1,2,2-Tetrachloroethane	ND	250	-	-	-
Tetrachloroethene	ND	250	-	-	-
1,2,3-Trichlorobenzene	ND	250	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 6/29/17  
**Date Analyzed:** 6/29/17  
**Instrument:** GC18  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1706D82  
**BatchID:** 141275  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-141275

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	250	-	-	-
1,1,1-Trichloroethane	ND	250	-	-	-
1,1,2-Trichloroethane	ND	250	-	-	-
Trichloroethene	ND	250	-	-	-
Trichlorofluoromethane	ND	250	-	-	-
1,2,3-Trichloropropane	ND	250	-	-	-
Vinyl Chloride	ND	250	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	14570		12500	117	70-130
Toluene-d8	12600		12500	101	70-130
4-BFB	1431		1250	115	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chlorobenzene	4280	4640	5000	86	93	69-112	8.01	30
1,2-Dibromoethane (EDB)	4570	4700	5000	91	94	62-117	2.97	30
1,2-Dichloroethane (1,2-DCA)	5010	5120	5000	100	102	61-126	2.03	30
1,1-Dichloroethene	4570	5320	5000	91	106	67-122	15.1	30
Trichloroethene	4610	5190	5000	92	104	66-127	11.7	30

#### Surrogate Recovery

Dibromofluoromethane	14,700	14,700	12500	118	118	83-124	0	30
Toluene-d8	12,800	12,900	12500	103	103	80-120	0	30
4-BFB	1470	1510	1250	117	120	70-129	2.73	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1706D82

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

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

Email: jasmith@aeiconsultants.com  
cc/3rd Party: nbricker@aeiconsultants.com;  
PO: 135959  
ProjectNo: 365948; Foothill Square

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 06/28/2017**

**Date Logged: 06/28/2017**

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	
1706D82-001	SSD-INF	Air	6/28/2017 12:46	<input type="checkbox"/>	A												

**Test Legend:**

1	8010_A(UG/M3)	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Kena Ponce**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.



### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** 365948; Foothill Square

**Work Order:** 1706D82

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 6/28/2017

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
1706D82-001A	SSD-INF	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	6/28/2017 12:46	5 days		<input type="checkbox"/>	

**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.



**McCAMPBELL ANALYTICAL, INC.**  
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269  
[www.mccampbell.com](http://www.mccampbell.com)      [main@mccampbell.com](mailto:main@mccampbell.com)

CHAIN OF CUSTODY RECORD									
Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD	<input checked="" type="checkbox"/>	Quote #	
J-Flag / MDL		ESL		Cleanup Approved			Bottle Order #		
Delivery Format: PDF		<input checked="" type="checkbox"/>	GeoTracker EDF		EDD	Write On (DW)		EQuIS	

Report To: Jeremy Smith      Bill To: AEI  
 Company: AEI  
 Email: [jasmith@aeiconsultants.com](mailto:jasmith@aeiconsultants.com)  
 Alt Email: [nbricker@aeiconsultants.com](mailto:nbricker@aeiconsultants.com)      Tele: 707-484-6223  
 Project Name: Foothill Swuare      Project #: 365948  
 Project Location: 10700 MacArthur Blvd., Oakland, CA      PO # 135959  
 Sampler Signature: *Nate Bjell*

**Analysis Requested**

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative
	Date	Time			
SSD-INF	6/28/17	1246	1	Air	

HVOCs by 8260																			

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.							Comments / Instructions		
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.									
Relinquished By / Company Name			Date	Time	Received By / Company Name			Date	Time
<i>Nate Bjell</i>			6/28	1720	<i>[Signature]</i>			6/28/17	1720

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<sub>2</sub>SO<sub>4</sub>   4=HNO<sub>3</sub>   5=NaOH   6=ZnOAc/NaOH   7=None

Temp \_\_\_\_\_ °C      Initials \_\_\_\_\_





### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **365948; Foothill Square**  
 WorkOrder No: **1706D82** Matrix: Air  
 Carrier: Client Drop-In

Date and Time Received: **6/28/2017 17:20**  
 Date Logged: **6/28/2017**  
 Received by: Jena Alfaro  
 Logged by: Kena Ponce

**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

**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: 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

**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: Method SW8260B (HVOCs List) was received past its 0.25-day holding time.



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1707B47

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 138366

**Project Name:** 365948; 10700 MacArthur Blvd, Oakland, CA

**Project Received:** 07/28/2017

Analytical Report reviewed & approved for release on 08/04/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; 10700 MacArthur Blvd, Oakland, CA  
**WorkOrder:** 1707B47

### 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)

### Analytical Qualifiers

H Samples were analyzed out of holding time



# Analytical Report

Client: AEI Consultants

WorkOrder: 1707B47

Date Received: 7/28/17 15:40

Extraction Method: SW5030B

Date Prepared: 7/29/17

Analytical Method: SW8260B

Project: 365948; 10700 MacArthur Blvd, Oakland, CA

Unit: µg/m<sup>3</sup>

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1707B47-001A	Air	07/28/2017 12:41	GC16	142852

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	07/29/2017 14:32
Bromochloromethane	ND	H	250	1	07/29/2017 14:32
Bromodichloromethane	ND	H	250	1	07/29/2017 14:32
Bromoform	ND	H	250	1	07/29/2017 14:32
Bromomethane	ND	H	250	1	07/29/2017 14:32
Carbon Tetrachloride	ND	H	250	1	07/29/2017 14:32
Chlorobenzene	ND	H	250	1	07/29/2017 14:32
Chloroethane	ND	H	250	1	07/29/2017 14:32
Chloroform	ND	H	250	1	07/29/2017 14:32
Chloromethane	ND	H	250	1	07/29/2017 14:32
2-Chlorotoluene	ND	H	250	1	07/29/2017 14:32
4-Chlorotoluene	ND	H	250	1	07/29/2017 14:32
Dibromochloromethane	ND	H	250	1	07/29/2017 14:32
1,2-Dibromo-3-chloropropane	ND	H	250	1	07/29/2017 14:32
1,2-Dibromoethane (EDB)	ND	H	250	1	07/29/2017 14:32
Dibromomethane	ND	H	250	1	07/29/2017 14:32
1,2-Dichlorobenzene	ND	H	250	1	07/29/2017 14:32
1,3-Dichlorobenzene	ND	H	250	1	07/29/2017 14:32
1,4-Dichlorobenzene	ND	H	250	1	07/29/2017 14:32
Dichlorodifluoromethane	ND	H	250	1	07/29/2017 14:32
1,1-Dichloroethane	ND	H	250	1	07/29/2017 14:32
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	07/29/2017 14:32
1,1-Dichloroethene	ND	H	250	1	07/29/2017 14:32
cis-1,2-Dichloroethene	ND	H	250	1	07/29/2017 14:32
trans-1,2-Dichloroethene	ND	H	250	1	07/29/2017 14:32
1,2-Dichloropropane	ND	H	250	1	07/29/2017 14:32
1,3-Dichloropropane	ND	H	250	1	07/29/2017 14:32
2,2-Dichloropropane	ND	H	250	1	07/29/2017 14:32
1,1-Dichloropropene	ND	H	250	1	07/29/2017 14:32
cis-1,3-Dichloropropene	ND	H	250	1	07/29/2017 14:32
trans-1,3-Dichloropropene	ND	H	250	1	07/29/2017 14:32
Freon 113	ND	H	5000	1	07/29/2017 14:32
Hexachlorobutadiene	ND	H	250	1	07/29/2017 14:32
Hexachloroethane	ND	H	250	1	07/29/2017 14:32
Methylene chloride	ND	H	250	1	07/29/2017 14:32
1,1,1,2-Tetrachloroethane	ND	H	250	1	07/29/2017 14:32
1,1,2,2-Tetrachloroethane	ND	H	250	1	07/29/2017 14:32

(Cont.)



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1707B47

**Date Received:** 7/28/17 15:40

**Extraction Method:** SW5030B

**Date Prepared:** 7/29/17

**Analytical Method:** SW8260B

**Project:** 365948; 10700 MacArthur Blvd, Oakland, CA

**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD INF	1707B47-001A	Air	07/28/2017 12:41	GC16	142852

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	<b>2100</b>	H	250	1	07/29/2017 14:32
1,2,3-Trichlorobenzene	ND	H	250	1	07/29/2017 14:32
1,2,4-Trichlorobenzene	ND	H	250	1	07/29/2017 14:32
1,1,1-Trichloroethane	ND	H	250	1	07/29/2017 14:32
1,1,2-Trichloroethane	ND	H	250	1	07/29/2017 14:32
Trichloroethene	<b>430</b>	H	250	1	07/29/2017 14:32
Trichlorofluoromethane	ND	H	250	1	07/29/2017 14:32
1,2,3-Trichloropropane	ND	H	250	1	07/29/2017 14:32
Vinyl Chloride	ND	H	250	1	07/29/2017 14:32

Surrogates	REC (%)	Qualifiers	Limits	
Dibromofluoromethane	106	H	70-130	07/29/2017 14:32
Toluene-d8	112	H	70-130	07/29/2017 14:32
4-BFB	122	H	70-130	07/29/2017 14:32

**Analyst(s):** KF



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1707B47
<b>Date Prepared:</b>	7/29/17	<b>BatchID:</b>	142852
<b>Date Analyzed:</b>	7/29/17	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC16	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Air	<b>Unit:</b>	µg/L
<b>Project:</b>	365948; 10700 MacArthur Blvd, Oakland, CA	<b>Sample ID:</b>	MB/LCS/LCSD-142852

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	0.25	-	-	-
Bromochloromethane	ND	0.25	-	-	-
Bromodichloromethane	ND	0.25	-	-	-
Bromoform	ND	0.25	-	-	-
Bromomethane	ND	0.25	-	-	-
Carbon Tetrachloride	ND	0.25	-	-	-
Chlorobenzene	ND	0.25	-	-	-
Chloroethane	ND	0.25	-	-	-
Chloroform	ND	0.25	-	-	-
Chloromethane	ND	0.25	-	-	-
2-Chlorotoluene	ND	0.25	-	-	-
4-Chlorotoluene	ND	0.25	-	-	-
Dibromochloromethane	ND	0.25	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.25	-	-	-
1,2-Dibromoethane (EDB)	ND	0.25	-	-	-
Dibromomethane	ND	0.25	-	-	-
1,2-Dichlorobenzene	ND	0.25	-	-	-
1,3-Dichlorobenzene	ND	0.25	-	-	-
1,4-Dichlorobenzene	ND	0.25	-	-	-
Dichlorodifluoromethane	ND	0.25	-	-	-
1,1-Dichloroethane	ND	0.25	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.25	-	-	-
1,1-Dichloroethene	ND	0.25	-	-	-
cis-1,2-Dichloroethene	ND	0.25	-	-	-
trans-1,2-Dichloroethene	ND	0.25	-	-	-
1,2-Dichloropropane	ND	0.25	-	-	-
1,3-Dichloropropane	ND	0.25	-	-	-
2,2-Dichloropropane	ND	0.25	-	-	-
1,1-Dichloropropene	ND	0.25	-	-	-
cis-1,3-Dichloropropene	ND	0.25	-	-	-
trans-1,3-Dichloropropene	ND	0.25	-	-	-
Freon 113	ND	5.0	-	-	-
Hexachlorobutadiene	ND	0.25	-	-	-
Hexachloroethane	ND	0.25	-	-	-
Methylene chloride	ND	0.25	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.25	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.25	-	-	-
Tetrachloroethene	ND	0.25	-	-	-
1,2,3-Trichlorobenzene	ND	0.25	-	-	-

(Cont.)



## Quality Control Report

<b>Client:</b> AEI Consultants	<b>WorkOrder:</b> 1707B47
<b>Date Prepared:</b> 7/29/17	<b>BatchID:</b> 142852
<b>Date Analyzed:</b> 7/29/17	<b>Extraction Method:</b> SW5030B
<b>Instrument:</b> GC16	<b>Analytical Method:</b> SW8260B
<b>Matrix:</b> Air	<b>Unit:</b> µg/L
<b>Project:</b> 365948; 10700 MacArthur Blvd, Oakland, CA	<b>Sample ID:</b> MB/LCS/LCSD-142852

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	0.25	-	-	-
1,1,1-Trichloroethane	ND	0.25	-	-	-
1,1,2-Trichloroethane	ND	0.25	-	-	-
Trichloroethene	ND	0.25	-	-	-
Trichlorofluoromethane	ND	0.25	-	-	-
1,2,3-Trichloropropane	ND	0.25	-	-	-
Vinyl Chloride	ND	0.25	-	-	-

**Surrogate Recovery**

Dibromofluoromethane	13.33	12.5	107	70-130
Toluene-d8	14.02	12.5	112	70-130
4-BFB	1.482	1.25	119	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chlorobenzene	5.26	5.31	5	105	106	69-112	1.11	30
1,2-Dibromoethane (EDB)	5.24	5.18	5	105	104	62-117	1.15	30
1,2-Dichloroethane (1,2-DCA)	5.26	5.25	5	105	105	61-126	0	30
1,1-Dichloroethene	5.96	6.06	5	119	121	67-122	1.66	30
Trichloroethene	5.68	5.84	5	114	117	66-127	2.78	30

**Surrogate Recovery**

Dibromofluoromethane	13.6	13.5	12.5	108	108	83-124	0	30
Toluene-d8	14.0	14.0	12.5	112	112	80-120	0	30
4-BFB	1.31	1.30	1.25	105	104	70-129	0.464	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1707B47

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

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

Email: jasmith@aeiconsultants.com  
cc/3rd Party:  
PO: 138366  
ProjectNo: 365948; 10700 MacArthur Blvd, Oakland, CA

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 07/28/2017**

**Date Logged: 07/28/2017**

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		
1707B47-001	SSD INF	Air	7/28/2017 12:41	<input type="checkbox"/>	A													

**Test Legend:**

1	8010_A(UG/M3)	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.





### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** 365948

**Work Order:** 1707B47

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 7/28/2017

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
1707B47-001A	SSD INF	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	7/28/2017 12:41	5 days		<input type="checkbox"/>	

**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.



**McCAMPBELL ANALYTICAL, INC.**  
1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701  
Telephone: (877) 252-9262 / Fax: (925) 252-9269  
[www.mccampbell.com](http://www.mccampbell.com)     [main@mccampbell.com](mailto:main@mccampbell.com)

**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: Jeremy Smith	Bill To: AEI Consultants
Company: AEI Consultants	
Email: jasmith@aeiconsultants.com	
Alt Email:	Tele: 925-746-6099
Project Name/ #: 365948	
Project Location: 10700 MacArthur Blvd., Oakland, California PO #138366	
Sampler Signature: <i>Nate Boyle</i>	

**Analysis Requested**

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	HVOCS EPA 8260														
	Date	Time																		
SSD INF	7/28/17	1241	1	A		●														

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.						Comments / Instructions
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.						
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	
<i>Nate Boyle</i>	7/29/17	1540	<i>[Signature]</i>	7/28/17	1540	

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<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=ZnOAc/NaOH 7=None  
 Temp \_\_\_\_\_ °C    Initials \_\_\_\_\_



### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **365948**

Date and Time Received: **7/28/2017 15:40**  
 Date Logged: **7/28/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

WorkOrder No: **1707B47** Matrix: Air  
 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

#### 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: 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

#### 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:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1708D19

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 140975

**Project Name:** 365948; Fathill Square

**Project Received:** 08/28/2017

Analytical Report reviewed & approved for release on 09/01/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; Fathill Square  
**WorkOrder:** 1708D19

### 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)

### Analytical Qualifiers

H Samples were analyzed out of holding time



# Analytical Report

**Client:** AEI Consultants  
**Date Received:** 8/28/17 16:25  
**Date Prepared:** 8/28/17  
**Project:** 365948; Fathill Square

**WorkOrder:** 1708D19  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD Inf	1708D19-001A	Air	08/28/2017 12:15	GC38	144558
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	08/28/2017 20:48
Bromochloromethane	ND	H	250	1	08/28/2017 20:48
Bromodichloromethane	ND	H	250	1	08/28/2017 20:48
Bromoform	ND	H	250	1	08/28/2017 20:48
Bromomethane	ND	H	250	1	08/28/2017 20:48
Carbon Tetrachloride	ND	H	250	1	08/28/2017 20:48
Chlorobenzene	ND	H	250	1	08/28/2017 20:48
Chloroethane	ND	H	250	1	08/28/2017 20:48
Chloroform	ND	H	250	1	08/28/2017 20:48
Chloromethane	ND	H	250	1	08/28/2017 20:48
2-Chlorotoluene	ND	H	250	1	08/28/2017 20:48
4-Chlorotoluene	ND	H	250	1	08/28/2017 20:48
Dibromochloromethane	ND	H	250	1	08/28/2017 20:48
1,2-Dibromo-3-chloropropane	ND	H	250	1	08/28/2017 20:48
1,2-Dibromoethane (EDB)	ND	H	250	1	08/28/2017 20:48
Dibromomethane	ND	H	250	1	08/28/2017 20:48
1,2-Dichlorobenzene	ND	H	250	1	08/28/2017 20:48
1,3-Dichlorobenzene	ND	H	250	1	08/28/2017 20:48
1,4-Dichlorobenzene	ND	H	250	1	08/28/2017 20:48
Dichlorodifluoromethane	ND	H	250	1	08/28/2017 20:48
1,1-Dichloroethane	ND	H	250	1	08/28/2017 20:48
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	08/28/2017 20:48
1,1-Dichloroethene	ND	H	250	1	08/28/2017 20:48
cis-1,2-Dichloroethene	ND	H	250	1	08/28/2017 20:48
trans-1,2-Dichloroethene	ND	H	250	1	08/28/2017 20:48
1,2-Dichloropropane	ND	H	250	1	08/28/2017 20:48
1,3-Dichloropropane	ND	H	250	1	08/28/2017 20:48
2,2-Dichloropropane	ND	H	250	1	08/28/2017 20:48
1,1-Dichloropropene	ND	H	250	1	08/28/2017 20:48
cis-1,3-Dichloropropene	ND	H	250	1	08/28/2017 20:48
trans-1,3-Dichloropropene	ND	H	250	1	08/28/2017 20:48
Freon 113	ND	H	5000	1	08/28/2017 20:48
Hexachlorobutadiene	ND	H	250	1	08/28/2017 20:48
Hexachloroethane	ND	H	250	1	08/28/2017 20:48
Methylene chloride	ND	H	250	1	08/28/2017 20:48
1,1,1,2-Tetrachloroethane	ND	H	250	1	08/28/2017 20:48
1,1,2,2-Tetrachloroethane	ND	H	250	1	08/28/2017 20:48

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 8/28/17 16:25  
**Date Prepared:** 8/28/17  
**Project:** 365948; Fathill Square

**WorkOrder:** 1708D19  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD Inf	1708D19-001A	Air	08/28/2017 12:15	GC38	144558

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	<b>2400</b>	H	250	1	08/28/2017 20:48
1,2,3-Trichlorobenzene	ND	H	250	1	08/28/2017 20:48
1,2,4-Trichlorobenzene	ND	H	250	1	08/28/2017 20:48
1,1,1-Trichloroethane	ND	H	250	1	08/28/2017 20:48
1,1,2-Trichloroethane	ND	H	250	1	08/28/2017 20:48
Trichloroethene	<b>410</b>	H	250	1	08/28/2017 20:48
Trichlorofluoromethane	ND	H	250	1	08/28/2017 20:48
1,2,3-Trichloropropane	ND	H	250	1	08/28/2017 20:48
Vinyl Chloride	ND	H	250	1	08/28/2017 20:48

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	118	H	70-130	08/28/2017 20:48
Toluene-d8	110	H	70-130	08/28/2017 20:48
4-BFB	102	H	70-130	08/28/2017 20:48

Analyst(s): HK



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 8/28/17  
**Date Analyzed:** 8/28/17  
**Instrument:** GC38  
**Matrix:** Air  
**Project:** 365948; Fathill Square

**WorkOrder:** 1708D19  
**BatchID:** 144558  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-144558

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	250	-	-	-
Bromochloromethane	ND	250	-	-	-
Bromodichloromethane	ND	250	-	-	-
Bromoform	ND	250	-	-	-
Bromomethane	ND	250	-	-	-
Carbon Tetrachloride	ND	250	-	-	-
Chlorobenzene	ND	250	-	-	-
Chloroethane	ND	250	-	-	-
Chloroform	ND	250	-	-	-
Chloromethane	ND	250	-	-	-
2-Chlorotoluene	ND	250	-	-	-
4-Chlorotoluene	ND	250	-	-	-
Dibromochloromethane	ND	250	-	-	-
1,2-Dibromo-3-chloropropane	ND	250	-	-	-
1,2-Dibromoethane (EDB)	ND	250	-	-	-
Dibromomethane	ND	250	-	-	-
1,2-Dichlorobenzene	ND	250	-	-	-
1,3-Dichlorobenzene	ND	250	-	-	-
1,4-Dichlorobenzene	ND	250	-	-	-
Dichlorodifluoromethane	ND	250	-	-	-
1,1-Dichloroethane	ND	250	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	250	-	-	-
1,1-Dichloroethene	ND	250	-	-	-
cis-1,2-Dichloroethene	ND	250	-	-	-
trans-1,2-Dichloroethene	ND	250	-	-	-
1,2-Dichloropropane	ND	250	-	-	-
1,3-Dichloropropane	ND	250	-	-	-
2,2-Dichloropropane	ND	250	-	-	-
1,1-Dichloropropene	ND	250	-	-	-
cis-1,3-Dichloropropene	ND	250	-	-	-
trans-1,3-Dichloropropene	ND	250	-	-	-
Freon 113	ND	5000	-	-	-
Hexachlorobutadiene	ND	250	-	-	-
Hexachloroethane	ND	250	-	-	-
Methylene chloride	ND	250	-	-	-
1,1,1,2-Tetrachloroethane	ND	250	-	-	-
1,1,2,2-Tetrachloroethane	ND	250	-	-	-
Tetrachloroethene	ND	250	-	-	-
1,2,3-Trichlorobenzene	ND	250	-	-	-

(Cont.)





## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 8/28/17  
**Date Analyzed:** 8/28/17  
**Instrument:** GC38  
**Matrix:** Air  
**Project:** 365948; Fathill Square

**WorkOrder:** 1708D19  
**BatchID:** 144558  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-144558

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	250	-	-	-
1,1,1-Trichloroethane	ND	250	-	-	-
1,1,2-Trichloroethane	ND	250	-	-	-
Trichloroethene	ND	250	-	-	-
Trichlorofluoromethane	ND	250	-	-	-
1,2,3-Trichloropropane	ND	250	-	-	-
Vinyl Chloride	ND	250	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	14380		12500	115	70-130
Toluene-d8	14010		12500	112	70-130
4-BFB	1319		1250	106	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chlorobenzene	4190	4270	5000	84	85	69-112	1.78	30
1,2-Dibromoethane (EDB)	4500	4570	5000	90	91	62-117	1.44	30
1,2-Dichloroethane (1,2-DCA)	4200	4240	5000	84	85	61-126	0.897	30
1,1-Dichloroethene	5010	5090	5000	100	102	67-122	1.59	30
Trichloroethene	4390	4480	5000	88	90	66-127	1.96	30

#### Surrogate Recovery

Dibromofluoromethane	14,800	14,900	12500	118	119	83-124	0.545	30
Toluene-d8	13,900	13,900	12500	111	111	80-120	0	30
4-BFB	1470	1470	1250	118	118	70-129	0	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

WaterTrax     WriteOn     EDF

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1708D19

ClientCode: AEL

Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag  
 Detection Summary     Dry-Weight

**Report to:**

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

Email: jasmith@aeiconsultants.com  
cc/3rd Party:  
PO: 140975  
ProjectNo: 365948; Fathill Square

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 08/28/2017**

**Date Logged: 08/28/2017**

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		
1708D19-001	SSD Inf	Air	8/28/2017 12:15	<input type="checkbox"/>	A													

**Test Legend:**

1	8010_A(UG/M3)	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.



### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** 365948; Fathill Square

**Work Order:** 1708D19

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 8/28/2017

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
1708D19-001A	SSD Inf	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	8/28/2017 12:15	5 days		<input type="checkbox"/>	

**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.



# McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269  
[www.mccampbell.com](http://www.mccampbell.com) [main@mccampbell.com](mailto:main@mccampbell.com)

## CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD <input checked="" type="checkbox"/>	Quote #
J-Flag / MDL	ESL	Cleanup Approved	Bottle Order #	
Delivery Format: PDF	GeoTracker EDF	EDD	Write On (DW)	EQuIS

Report To: Jeremy Smith Bill To: AEI Consultants  
 Company: AEI Consultants  
 Email: jasmith@aeiconsultants.com  
 Alt Email: whung@aeiconsultants.com Tele: 925-946-6022  
 Project Name: Foothill Square Project #: 365948  
 Project Location: 10700 MacArthur Blvd PO # 140975  
 Sampler Signature: [Signature]

### Analysis Requested

BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM/ 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	# HVOCs w/ 8260
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SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative
	Date	Time			
<u>SSD Inf</u>	<u>8/28/17</u>	<u>12:15</u>	<u>1</u>	<u>Air</u>	<u>—</u>

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.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<u>[Signature]</u>	<u>8/28/17</u>	<u>15:00</u>	<u>[Signature]</u>	<u>8/28/17</u>	<u>15:25</u>
<u>[Signature]</u>	<u>8/28/17</u>	<u>16:25</u>	<u>[Signature]</u>	<u>8/28/17</u>	<u>16:25</u>

Comments / Instructions

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<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=ZnOAc/NaOH 7=None  
 Temp \_\_\_\_\_ °C Initials \_\_\_\_\_



Sample Receipt Checklist

Client Name: AEI Consultants  
Project Name: 365948; Fathill Square

Date and Time Received: 8/28/2017 16:25  
Date Logged: 8/28/2017  
Received by: Jena Alfaro  
Logged by: Jena Alfaro

WorkOrder No: 1708D19 Matrix: Air  
Carrier: Basit Sheikh (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

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

UCMR Samples:

- Total Chlorine tested and acceptable upon receipt for EPA 522? Yes [ ] No [ ] NA [checked]
- Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes [ ] No [ ] NA [checked]

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1709C74

**Report Created for:** AEI Consultants

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

**Project Contact:** Jeremy Smith

**Project P.O.:** 143371

**Project Name:** 365948; Foothill Square

**Project Received:** 09/29/2017

Analytical Report reviewed & approved for release on 10/05/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** 365948; Foothill Square  
**WorkOrder:** 1709C74

### 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)

### Analytical Qualifiers

H Samples were analyzed out of holding time



## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 9/29/17 15:55  
**Date Prepared:** 9/30/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1709C74  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD-INF	1709C74-001A	Air	09/29/2017 12:46	GC10 09291744.D	146312
Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Bromobenzene	ND	H	250	1	09/30/2017 14:55
Bromochloromethane	ND	H	250	1	09/30/2017 14:55
Bromodichloromethane	ND	H	250	1	09/30/2017 14:55
Bromoform	ND	H	250	1	09/30/2017 14:55
Bromomethane	ND	H	250	1	09/30/2017 14:55
Carbon Tetrachloride	ND	H	250	1	09/30/2017 14:55
Chlorobenzene	ND	H	250	1	09/30/2017 14:55
Chloroethane	ND	H	250	1	09/30/2017 14:55
Chloroform	ND	H	250	1	09/30/2017 14:55
Chloromethane	ND	H	250	1	09/30/2017 14:55
2-Chlorotoluene	ND	H	250	1	09/30/2017 14:55
4-Chlorotoluene	ND	H	250	1	09/30/2017 14:55
Dibromochloromethane	ND	H	250	1	09/30/2017 14:55
1,2-Dibromo-3-chloropropane	ND	H	250	1	09/30/2017 14:55
1,2-Dibromoethane (EDB)	ND	H	250	1	09/30/2017 14:55
Dibromomethane	ND	H	250	1	09/30/2017 14:55
1,2-Dichlorobenzene	ND	H	250	1	09/30/2017 14:55
1,3-Dichlorobenzene	ND	H	250	1	09/30/2017 14:55
1,4-Dichlorobenzene	ND	H	250	1	09/30/2017 14:55
Dichlorodifluoromethane	ND	H	250	1	09/30/2017 14:55
1,1-Dichloroethane	ND	H	250	1	09/30/2017 14:55
1,2-Dichloroethane (1,2-DCA)	ND	H	250	1	09/30/2017 14:55
1,1-Dichloroethene	ND	H	250	1	09/30/2017 14:55
cis-1,2-Dichloroethene	ND	H	250	1	09/30/2017 14:55
trans-1,2-Dichloroethene	ND	H	250	1	09/30/2017 14:55
1,2-Dichloropropane	ND	H	250	1	09/30/2017 14:55
1,3-Dichloropropane	ND	H	250	1	09/30/2017 14:55
2,2-Dichloropropane	ND	H	250	1	09/30/2017 14:55
1,1-Dichloropropene	ND	H	250	1	09/30/2017 14:55
cis-1,3-Dichloropropene	ND	H	250	1	09/30/2017 14:55
trans-1,3-Dichloropropene	ND	H	250	1	09/30/2017 14:55
Freon 113	ND	H	5000	1	09/30/2017 14:55
Hexachlorobutadiene	ND	H	250	1	09/30/2017 14:55
Hexachloroethane	ND	H	250	1	09/30/2017 14:55
Methylene chloride	ND	H	250	1	09/30/2017 14:55
1,1,1,2-Tetrachloroethane	ND	H	250	1	09/30/2017 14:55
1,1,2,2-Tetrachloroethane	ND	H	250	1	09/30/2017 14:55

(Cont.)





## Analytical Report

**Client:** AEI Consultants  
**Date Received:** 9/29/17 15:55  
**Date Prepared:** 9/30/17  
**Project:** 365948; Foothill Square

**WorkOrder:** 1709C74  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SSD-INF	1709C74-001A	Air	09/29/2017 12:46	GC10 09291744.D	146312

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Tetrachloroethene	<b>2300</b>	H	250	1	09/30/2017 14:55
1,2,3-Trichlorobenzene	ND	H	250	1	09/30/2017 14:55
1,2,4-Trichlorobenzene	ND	H	250	1	09/30/2017 14:55
1,1,1-Trichloroethane	ND	H	250	1	09/30/2017 14:55
1,1,2-Trichloroethane	ND	H	250	1	09/30/2017 14:55
Trichloroethene	<b>420</b>	H	250	1	09/30/2017 14:55
Trichlorofluoromethane	ND	H	250	1	09/30/2017 14:55
1,2,3-Trichloropropane	ND	H	250	1	09/30/2017 14:55
Vinyl Chloride	ND	H	250	1	09/30/2017 14:55

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	115	H	84-115	09/30/2017 14:55
Toluene-d8	109	H	86-112	09/30/2017 14:55
4-BFB	86	H	66-121	09/30/2017 14:55

**Analyst(s):** AK



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 9/29/17  
**Date Analyzed:** 9/29/17  
**Instrument:** GC10  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1709C74  
**BatchID:** 146312  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-146312

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Bromobenzene	ND	250	-	-	-
Bromochloromethane	ND	250	-	-	-
Bromodichloromethane	ND	250	-	-	-
Bromoform	ND	250	-	-	-
Bromomethane	ND	250	-	-	-
Carbon Tetrachloride	ND	250	-	-	-
Chlorobenzene	ND	250	-	-	-
Chloroethane	ND	250	-	-	-
Chloroform	ND	250	-	-	-
Chloromethane	ND	250	-	-	-
2-Chlorotoluene	ND	250	-	-	-
4-Chlorotoluene	ND	250	-	-	-
Dibromochloromethane	ND	250	-	-	-
1,2-Dibromo-3-chloropropane	ND	250	-	-	-
1,2-Dibromoethane (EDB)	ND	250	-	-	-
Dibromomethane	ND	250	-	-	-
1,2-Dichlorobenzene	ND	250	-	-	-
1,3-Dichlorobenzene	ND	250	-	-	-
1,4-Dichlorobenzene	ND	250	-	-	-
Dichlorodifluoromethane	ND	250	-	-	-
1,1-Dichloroethane	ND	250	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	250	-	-	-
1,1-Dichloroethene	ND	250	-	-	-
cis-1,2-Dichloroethene	ND	250	-	-	-
trans-1,2-Dichloroethene	ND	250	-	-	-
1,2-Dichloropropane	ND	250	-	-	-
1,3-Dichloropropane	ND	250	-	-	-
2,2-Dichloropropane	ND	250	-	-	-
1,1-Dichloropropene	ND	250	-	-	-
cis-1,3-Dichloropropene	ND	250	-	-	-
trans-1,3-Dichloropropene	ND	250	-	-	-
Freon 113	ND	5000	-	-	-
Hexachlorobutadiene	ND	250	-	-	-
Hexachloroethane	ND	250	-	-	-
Methylene chloride	ND	250	-	-	-
1,1,1,2-Tetrachloroethane	ND	250	-	-	-
1,1,2,2-Tetrachloroethane	ND	250	-	-	-
Tetrachloroethene	ND	250	-	-	-
1,2,3-Trichlorobenzene	ND	250	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 9/29/17  
**Date Analyzed:** 9/29/17  
**Instrument:** GC10  
**Matrix:** Air  
**Project:** 365948; Foothill Square

**WorkOrder:** 1709C74  
**BatchID:** 146312  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/m<sup>3</sup>  
**Sample ID:** MB/LCS/LCSD-146312

### QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
1,2,4-Trichlorobenzene	ND	250	-	-	-
1,1,1-Trichloroethane	ND	250	-	-	-
1,1,2-Trichloroethane	ND	250	-	-	-
Trichloroethene	ND	250	-	-	-
Trichlorofluoromethane	ND	250	-	-	-
1,2,3-Trichloropropane	ND	250	-	-	-
Vinyl Chloride	ND	250	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	13750		12500	110	79-131
Toluene-d8	14020		12500	112	81-124
4-BFB	1013		1250	81	74-128

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chlorobenzene	4180	3780	5000	84	76	72-107	10.1	30
1,2-Dibromoethane (EDB)	3380	3450	5000	68	69	68-110	2.20	30
1,2-Dichloroethane (1,2-DCA)	3660	3740	5000	73	75	68-115	2.14	30
1,1-Dichloroethene	5060	4280	5000	101	86	58-127	16.8	30
Trichloroethene	4430	3930	5000	89	79	73-117	11.9	30

#### Surrogate Recovery

Dibromofluoromethane	13,600	13,900	12500	109	111	79-131	2.57	30
Toluene-d8	14,100	13,700	12500	113	110	81-124	2.74	30
4-BFB	1150	1170	1250	92	94	74-128	1.24	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

WaterTrax  WriteOn  EDF

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1709C74

ClientCode: AEL

Excel  EQulS  Email  HardCopy  ThirdParty  J-flag  
 Detection Summary  Dry-Weight

**Report to:**

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 321-3561 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
cc/3rd Party:  
PO: 143371  
ProjectNo: 365948; Foothill Square

**Bill to:**

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

**Requested TAT: 5 days;**

**Date Received: 09/29/2017**

**Date Logged: 09/29/2017**

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		
1709C74-001	SSD-INF	Air	9/29/2017 12:46	<input type="checkbox"/>	A													

**Test Legend:**

1	8010_A(UG/M3)	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

The following SampID: 001A contains testgroup 8010BMS\_A.

**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.



### WORK ORDER SUMMARY

**Client Name:** AEI CONSULTANTS

**Project:** 365948; Foothill Square

**Work Order:** 1709C74

**Client Contact:** Jeremy Smith

**QC Level:** LEVEL 2

**Contact's Email:** jasmith@aeiconsultants.com

**Comments:**

**Date Logged:** 9/29/2017

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
1709C74-001A	SSD-INF	Air	HVOCs by GCMS	1	Tedlar	<input type="checkbox"/>	9/29/2017 12:46	5 days		<input type="checkbox"/>	

**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.



**McCAMPBELL ANALYTICAL, INC.**  
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269  
[www.mccampbell.com](http://www.mccampbell.com)      [main@mccampbell.com](mailto:main@mccampbell.com)

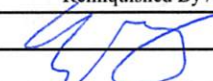
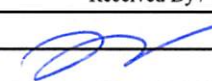
<b>CHAIN OF CUSTODY RECORD</b>			
Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD <input checked="" type="radio"/> Quote #
J-Flag / MDL	ESL	Cleanup Approved	Bottle Order #
Delivery Format: PDF	GeoTracker EDF	EDD	Write On (DW)      EQuIS

Report To: Jeremy Smith      Bill To: AEI Consultants  
 Company: AEI Consultants  
 Email: jasmith@aeiconsultants.com  
 Alt Email:      Tele: 925-746-6000  
 Project Name: Foothill Square      Project #365948  
 Project Location: Oakland, Ca      PO # 143371  
 Sampler Signature:

**Analysis Requested**

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	HVOCS 6/ 8=60	
	Date	Time																				
SSD-3mf	9/29/17	1245	1	Vapor	—																	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.						Comments / Instructions
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.						
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	
	9/29/17	1555		9/29/17	1555	

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<sub>2</sub>SO<sub>4</sub>   4=HNO<sub>3</sub>   5=NaOH   6=ZnOAc/NaOH   7=None  
 Temp \_\_\_\_\_ °C      Initials \_\_\_\_\_



### Sample Receipt Checklist

Client Name: **AEI Consultants**  
 Project Name: **365948; Foothill Square**  
 WorkOrder No: **1709C74** Matrix: Air  
 Carrier: Client Drop-In

Date and Time Received: **9/29/2017 15:55**  
 Date Logged: **9/29/2017**  
 Received by: Jena Alfaro  
 Logged by: Jena Alfaro

#### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

#### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature		Temp:	NA <input checked="" type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

#### UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments: Method SW8260B (HVOCs List) was received past its 0.25-day holding time.