



City of Emeryville

INCORPORATED 1896
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1333 Park Avenue
Emeryville, California 94608-3517
Tel: (510) 596-4380 | Fax: (510) 596-3724

7 November 2017

RECEIVED

By Alameda County Environmental Health 11:34 am, Nov 15, 2017

Mark Detterman, P.G., CEG
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Response to ACDEH Inquiry Regarding Naphthalene Results for Soil Vapor Samples
Former Horton Street Underground Storage Tank
In Public Right-of-Way on Horton Street Adjacent to 5679 Horton Street,
Emeryville, California
Case No. RO0003185

Dear Mr. Detterman:

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached response letter submitted on my behalf to Alameda County Department of Environmental Health's FTP server and the State Water Resources Control Board's Geotracker Website.

If you have any questions or need additional information, please contact me at 510-596-4380.

Sincerely,

Michael A. Guina
City Attorney
City of Emeryville

Attachment: Response to ACDEH Inquiry Regarding Naphthalene Results for Soil Vapor Samples

7 November 2017

Mark Detterman, P.G., CEG
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Response to ACDEH Inquiry Regarding Naphthalene Results for Soil Vapor Samples
Former Horton Street Underground Storage Tank
In Public Right-of-Way on Horton Street Adjacent to 5679 Horton Street,
Emeryville, California
(EKI B20006.00 T7)


Dear Mr. Detterman:

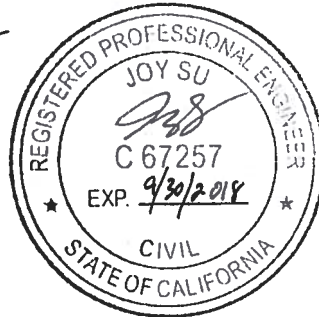
EKI Environment & Water, Inc. ("EKI") (formerly known as Erler & Kalinowski, Inc.) is pleased to submit this letter on behalf of our client, the City of Emeryville as the Successor Agency to the Emeryville Redevelopment Agency ("Successor Agency"), in response to Alameda County Department of Environmental Health's ("ACDEH's") inquiry regarding naphthalene results for soil vapor samples for the Former Horton Street Underground Storage Tank ("UST"), located in the public right-of-way on Horton Street adjacent to 5679 Horton Street in Emeryville, California ("Site"). Previous soil vapor sampling results for the Site were presented in the *Results of Data Gap Investigation*, dated 17 March 2017 (EKI, 2017a), and the *Results of 20 July 2017 Soil Vapor Sampling and Recommendation for Closure*, dated 12 September 2017 (EKI, 2017b). Revised laboratory analytical reports that include analytical results for naphthalene in soil vapor samples are provided in Attachment A. Naphthalene was not detected above the laboratory reporting limit of 5.24 micrograms per cubic meter ("ug/cm³") in either of the two soil vapor samples collected from soil vapor probe TSV01 at the Site.


Please call if you have any questions or wish to discuss these matters in greater detail.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.


Joy Su, P.E.
Project Manager




Earl James, P.G.
Vice President

REFERENCES

EKI, 2017a. *Results of Data Gap Investigation*, In Public Right-of-Way on Horton Street Adjacent to 5679 Horton Street, Emeryville, California, 17 March 2017.

EKI, 2017b. *Results of 20 July 2017 Soil Vapor Sampling and Recommendation for Closure*, In Public Right-of-Way on Horton Street Adjacent to 5679 Horton Street, Emeryville, California, 12 September 2017.

ATTACHMENTS

Attachment 1 Laboratory Analytical Reports Including Chain-of-Custody Records

ATTACHMENT 1

Laboratory Analytical Reports Including Chain-of-Custody Records

K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.
Santa Rosa CA 95403
Phone: 707 527 7574
FAX: 707 527 7879

TRANSMITTAL

DATE: 11/3/2017

TO: MS. JOY SU
MS. JESSICA DAUGHERTY
MR. GRAEME BRUNST
MR. KEL MITCHELL
MR. RYAN FORD
EKI ENVIRONMENT & WATER, INC.
577 AIRPORT BLVD, STE 500
BURLINGAME, CA 94010

ACCT: 9115
PROJ: B20006.00 T7

Phone: 650-292-9100
Fax: 650-552-9012
Email: labs@ekiconsult.com
jsu@ekiconsult.com
jdaugherty@ekiconsult.com
gbrunst@ekiconsult.com
kmitchell@ekiconsult.com
rford@ekiconsult.com

FROM: Richard A. Kagel, Ph.D. *RAK 11/3/2017*
Laboratory Director

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT B20006.00 T7

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
TSV01	AIR	2/2/2017	15:26	151335

The above listed sample group was received on 2/2/2017 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.
Thank you for this opportunity to be of service.

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9115
CLIENT PROJECT: B20006.00 T7

METHOD: VOC'S IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: TSV01
LAB NO: 151335
SAMPLE TYPE: AIR
DATE SAMPLED: 02/02/2017
TIME SAMPLED: 15:26
BATCH ID: 012617A1
DATE ANALYZED: 02/03/2017

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	1.00	ND	4.95	ND
CHLOROMETHANE	74-87-3	1.00	ND	2.07	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	1.00	ND	6.99	ND
VINYL CHLORIDE	75-01-4	1.00	ND	2.56	ND
BROMOMETHANE	74-83-9	1.00	ND	3.88	ND
CHLOROETHANE	75-00-3	1.00	ND	2.64	ND
TRICHLOROFLUOROMETHANE	75-69-4	1.00	ND	5.62	ND
1,1-DICHLOROETHENE	75-35-4	1.00	ND	3.97	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	1.00	ND	7.66	ND
METHYLENE CHLORIDE	75-09-2	1.00	ND	3.47	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	1.00	ND	3.96	ND
1,1-DICHLOROETHANE	75-34-3	1.00	ND	4.05	ND
CIS-1,2-DICHLOROETHENE	159-59-2	1.00	ND	3.97	ND
CHLOROFORM	67-66-3	1.00	ND	4.88	ND
1,1,1-TRICHLOROETHANE	71-55-6	1.00	ND	5.46	ND
1,2-DICHLOROETHANE	107-06-2	1.00	ND	4.05	ND
BENZENE	71-43-2	1.00	ND	3.19	ND
CARBON TETRACHLORIDE	56-23-5	1.00	ND	6.29	ND
1,2-DICHLOROPROPANE	78-87-5	1.00	ND	4.62	ND
TRICHLOROETHENE	79-01-6	1.00	1.84	5.37	9.89
CIS-1,3-DICHLOROPROPENE	10061-01-5	1.00	ND	4.54	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.00	ND	4.54	ND
TOLUENE	108-88-3	1.00	ND	3.77	ND
1,1,2-TRICHLOROETHANE	79-00-5	1.00	ND	5.46	ND
1,2-DIBROMOETHANE	106-93-4	1.00	ND	7.68	ND
TETRACHLOROETHENE	127-18-4	1.00	2.27	6.78	15.4
CHLOROBENZENE	108-90-7	1.00	ND	4.60	ND
ETHYLBENZENE	100-41-4	1.00	ND	4.34	ND
XYLENE (M+P)	179601-23-1	2.00	ND	8.68	ND
STYRENE	100-42-5	1.00	ND	4.26	ND
XYLENE (O)	95-47-6	1.00	ND	4.34	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	1.00	ND	6.87	ND
1,3,5-TRIMETHYLBENZENE	108-87-8	1.00	ND	4.92	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	1.00	ND	4.92	ND
1,3-DICHLOROBENZENE	541-73-1	1.00	ND	6.01	ND
1,4-DICHLOROBENZENE	106-46-7	1.00	ND	6.01	ND
1,2-DICHLOROBENZENE	95-50-1	1.00	ND	6.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND	7.42	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND	10.7	ND
NAPHTHALENE	91-20-3	1.00	ND	5.24	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

RL - REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: _____

DATE: _____

AMC

11/3/17

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9115
CLIENT PROJECT: B20006.00 T7

METHOD: 1,1-DIFLUOROETHANE
REFERENCE: EPA TO 3

UNITS: PPMV

SAMPLE ID	LAB NO.	SAMPLE TYPE	DATE SAMPLED	BATCH ID	DATE ANALYZED	MRL	SAMPLE CONC
TSV01	151335	AIR	02/02/2017	012417A1	02/03/2017	10.0	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE
MRL - METHOD REPORTING LIMIT

APPROVED BY: TJ
DATE: 2/9/2017

K PRIME, INC.
LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B012617A1
SAMPLE TYPE: AIR

BATCH ID: 012617A1
DATE ANALYZED: 1/26/2017

METHOD: VOC'S IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND	2.47	ND
CHLOROMETHANE	74-87-3	0.500	ND	1.03	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	0.500	ND	3.50	ND
VINYL CHLORIDE	75-01-4	0.500	ND	1.28	ND
BROMOMETHANE	74-83-9	0.500	ND	1.94	ND
CHLOROETHANE	75-00-3	0.500	ND	1.32	ND
TRICHLOROFLUOROMETHANE	75-89-4	0.500	ND	2.81	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND	1.98	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND	3.83	ND
METHYLENE CHLORIDE	75-09-2	0.500	ND	1.74	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND	1.98	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND	2.02	ND
CIS-1,2-DICHLOROETHENE	159-59-2	0.500	ND	1.98	ND
CHLOROFORM	67-66-3	0.500	ND	2.44	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND	2.73	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND	2.02	ND
BENZENE	71-43-2	0.500	ND	1.60	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND	3.15	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND	2.31	ND
TRICHLOROETHENE	79-01-6	0.500	ND	2.69	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND	2.27	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND	2.27	ND
TOLUENE	108-88-3	0.500	ND	1.88	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND	2.73	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND	3.84	ND
TETRACHLOROETHENE	127-18-4	0.500	ND	3.39	ND
CHLOROBENZENE	108-90-7	0.500	ND	2.30	ND
ETHYLBENZENE	100-41-4	0.500	ND	2.17	ND
XYLENE (M+P)	179601-23-1	1.00	ND	4.34	ND
STYRENE	100-42-5	0.500	ND	2.13	ND
XYLENE (O)	95-47-6	0.500	ND	2.17	ND
1,1,1,2-TETRACHLOROETHANE	79-34-5	0.500	ND	3.43	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND	2.46	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND	2.46	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND	3.01	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND	3.01	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND	3.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	0.500	ND	3.71	ND
HEXACHLOROBUTADIENE	87-68-3	0.500	ND	5.33	ND
NAPHTHALENE	91-20-3	0.500	ND	2.62	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

K PRIME, INC.
LABORATORY QUALITY CONTROL REPORT

LAB CONTROL ID: L012617A1
LAB CONTROL DUPLICATE ID: D012617A1

SAMPLE TYPE: AIR
BATCH ID: 012617A1
DATE ANALYZED: 1/26/2017

METHOD: VOC'S IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

COMPOUND NAME	SPIKE ADDED (PPB)	REPORTING LIMIT (PPB)	SAMPLE CONC (PPB)	SPIKE CONC (PPB)	SPIKE REC (%)	REC LIMITS (%)
1,1-DICHLOROETHENE	10.0	0.500	ND	8.71	87	60 - 140
BENZENE	10.0	0.500	ND	8.44	84	60 - 140
TRICHLOROETHENE	10.0	0.500	ND	9.31	93	60 - 140
TOLUENE	10.0	0.500	ND	9.37	94	60 - 140
TETRACHLOROETHENE	10.0	0.500	ND	9.36	94	60 - 140

COMPOUND NAME	SPIKE ADDED (PPB)	SPIKE DUP CONC (PPB)	SPIKE DUP REC (%)	RPD (%)	RPD (%)	QC LIMITS REC (%)
1,1-DICHLOROETHENE	10.0	9.58	96	9.5	25	60 - 140
BENZENE	10.0	8.87	89	5.0	25	60 - 140
TRICHLOROETHENE	10.0	10.7	107	14.0	25	60 - 140
TOLUENE	10.0	9.08	91	3.1	25	60 - 140
TETRACHLOROETHENE	10.0	8.66	87	7.8	25	60 - 140

NOTES:

NA - NOT APPLICABLE OR AVAILABLE
 ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

K PRIME, INC.
LABORATORY QC REPORT

METHOD BLANK ID: B012417A1
LAB CONTROL SAMPLE ID: L012417A1
LAB CONTROL DUPLICATE ID: D012417A1
BATCH ID: 012417A1

METHOD: 1,1-DIFLUOROETHANE
REFERENCE: EPA TO 3

SAMPLE TYPE: AIR
UNITS: PPM -V/V

METHOD BLANK

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
1,1-DIFLUOROETHANE	10.0	ND

ACCURACY (LAB CONTROL SAMPLE)

COMPOUND NAME	EXPECTED CONC	MEASURED CONC	PERCENT RECOVERY	LIMITS (PERCENT)
1,1-DIFLUOROETHANE	10000	10900	109	60-140

PRECISION (LAB CONTROL DUPLICATE)

COMPOUND NAME	SAMPLE RESULT	DUPLICATE RESULT	RPD (PERCENT)	LIMITS (PERCENT)
1,1-DIFLUOROETHANE	10900	10700	1.9	±30

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE

Erler & Kalinowski, Inc.

CONSULTING ENGINEERS AND SCIENTISTS

1870 Ogdan Drive, Burlingame CA 94010


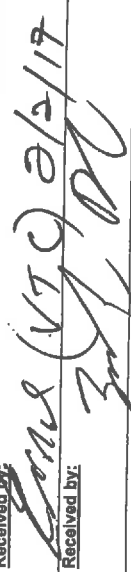
PHONE: 650-292-9100

FAX: 650-552-9012

CHAIN OF CUSTODY RECORD

Project Name: Horton St UST		Project No.: B20006.00 T7		Analyses Requested: EPA TO-15: VOCs EPA TO-3: 1,1-Difluoroethane (DFA)		GeoTracker Global ID #: T10000007323	
Location: Emeryville, CA		Sampled By: G. Brunst & K. Mitchel		Revision: _____ (A, B, C, D, etc.)		Date: _____ By: _____	
Reporting: Electronic Format: EDF Hard Copy Format: PDF EPA Data Report Level: II		Laboratory: K Prime, Inc. 3621 Westwind Blvd. Santa Rosa, CA 95403 707-527-7574 phone		PLACE ON HOLD		EXPECTED TURNAROUND TIME: STD	
Please report results to the following people: (1) Data Archive: labs@ekiconsult.com (2) Joy Su: jsu@ekiconsult.com (3) Jessica Daugherty: jdaugherty@ekiconsult.com (4) Graeme Brunst: gbrunst@ekiconsult.com (5) Kai Mitchell: kmitchel@ekiconsult.com (6) Ryan Ford: rford@ekiconsult.com		Method No.: _____ Analyte Group: _____		EXpected Turnaround Time: STD		REMARKS / Summa ID: S-294	
Field Sample Identification: TSV01		Lab Sample No.: 151335		Date: 2/2/2017		Number / Type of Container (Preservative): 1 x 1-L summa	
		Time: 1526		Matrix: Air			
(A large diagonal line is drawn across the remaining empty rows of the table.)							

Special Instructions: Please report both ppmv and ug/m³ on the EDD. Please report DFA ~~X~~ results with 10 ppmv reporting limit.

Relinquished by: 	Signature/Affiliation: G. Brunst (VTC)	Date: 2/2/17	Time: 1550	Received by: 	Date: 2/2/17	Time: 17:48	Received by: Kai Mitchell (VTC)	Date: 2/2/17	Time: 3:50
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K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.
Santa Rosa CA 95403
Phone: 707 527 7574
FAX: 707 527 7879

TRANSMITTAL

DATE: 11/3/2017

TO: MS. JOY SU
MS. JESSICA DAUGHERTY
MR. GRAEME BRUNST
MR. KEL MITCHEL
MR. RYAN FORD
EKI ENVIRONMENT & WATER, INC.
577 AIRPORT BLVD, STE 500
BURLINGAME, CA 94010

ACCT: 9115
PROJ: B20006.00 T7

Phone: 650-292-9100
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jdaugherty@ekiconsult.com
gbrunst@ekiconsult.com
kmitchell@ekiconsult.com
rford@ekiconsult.com

FROM: Richard A. Kagel, Ph.D. *RAM 11/3/2017*
Laboratory Director

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT B20006.00 T7

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
TSV01	AIR	7/20/2017	16:00	156529

The above listed sample group was received on 7/21/2017 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.
Thank you for this opportunity to be of service.

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 9115
CLIENT PROJECT: B20006.00 T7

METHOD: 1,1-DIFLUOROETHANE
REFERENCE: EPA TO 3

UNITS: PPMV

SAMPLE ID	LAB NO.	SAMPLE TYPE	DATE SAMPLED	BATCH ID	DATE ANALYZED	MRL	SAMPLE CONC
TSV01	156529	AIR	07/20/2017	072417A1	07/24/2017	10.0	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE
MRL - METHOD REPORTING LIMIT

APPROVED BY: *PMC*
DATE: *8/1/17*

K PRIME, INC.
LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B071217A1
SAMPLE TYPE: AIR

BATCH ID: 071217A1
DATE ANALYZED: 7/12/2017

METHOD: VOC'S IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND	2.47	ND
CHLOROMETHANE	74-87-3	0.500	ND	1.03	ND
DICHLOROTETRAFLUROETHANE	76-14-2	0.500	ND	3.50	ND
VINYL CHLORIDE	75-01-4	0.500	ND	1.28	ND
BROMOMETHANE	74-83-9	0.500	ND	1.94	ND
CHLOROETHANE	75-00-3	0.500	ND	1.32	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND	2.81	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND	1.98	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND	3.83	ND
METHYLENE CHLORIDE	75-09-2	0.500	ND	1.74	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND	1.98	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND	2.02	ND
CIS-1,2-DICHLOROETHENE	159-59-2	0.500	ND	1.98	ND
CHLOROFORM	67-66-3	0.500	ND	2.44	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND	2.73	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND	2.02	ND
BENZENE	71-43-2	0.500	ND	1.60	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND	3.15	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND	2.31	ND
TRICHLOROETHENE	79-01-6	0.500	ND	2.69	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND	2.27	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND	2.27	ND
TOLUENE	108-88-3	0.500	ND	1.88	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND	2.73	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND	3.84	ND
TETRACHLOROETHENE	127-18-4	0.500	ND	3.39	ND
CHLOROBENZENE	108-90-7	0.500	ND	2.30	ND
ETHYLBENZENE	100-41-4	0.500	ND	2.17	ND
XYLENE (M+P)	179601-23-1	1.00	ND	4.34	ND
STYRENE	100-42-5	0.500	ND	2.13	ND
XYLENE (O)	95-47-6	0.500	ND	2.17	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND	3.43	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND	2.46	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND	2.46	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND	3.01	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND	3.01	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND	3.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	0.500	ND	3.71	ND
HEXACHLOROBUTADIENE	87-66-3	0.500	ND	5.33	ND
NAPHTHALENE	91-20-3	0.500	ND	2.62	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

K PRIME, INC.
LABORATORY QUALITY CONTROL REPORT

LAB CONTROL ID: L071217A1
LAB CONTROL DUPLICATE ID: D071217A1

SAMPLE TYPE: AIR
BATCH ID: 071217A1
DATE ANALYZED: 7/12/2017

METHOD: VOC'S IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

COMPOUND NAME	SPIKE ADDED (PPB)	REPORTING LIMIT (PPB)	SAMPLE CONC (PPB)	SPIKE CONC (PPB)	SPIKE REC (%)	REC LIMITS (%)
1,1-DICHLOROETHENE	10.0	0.500	ND	10.5	105	60 - 140
BENZENE	10.0	0.500	ND	11.8	118	60 - 140
TRICHLOROETHENE	10.0	0.500	ND	10.1	101	60 - 140
TOLUENE	10.0	0.500	ND	11.8	118	60 - 140
TETRACHLOROETHENE	10.0	0.500	ND	9.39	94	60 - 140

COMPOUND NAME	SPIKE ADDED (PPB)	SPIKE DUP CONC (PPB)	SPIKE DUP REC (%)	RPD (%)	QC LIMITS	
					RPD (%)	REC (%)
1,1-DICHLOROETHENE	10.0	10.7	107	2.1	25	60 - 140
BENZENE	10.0	11.9	119	1.3	25	60 - 140
TRICHLOROETHENE	10.0	10.1	101	0.4	25	60 - 140
TOLUENE	10.0	11.8	118	0.1	25	60 - 140
TETRACHLOROETHENE	10.0	9.41	94	0.2	25	60 - 140

NOTES:

NA - NOT APPLICABLE OR AVAILABLE

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

K PRIME, INC.
LABORATORY QC REPORT

METHOD BLANK ID: B072417A1
LAB CONTROL SAMPLE ID: L072417A1
LAB CONTROL DUPLICATE ID: D072417A1
BATCH ID: 072417A1

METHOD: 1,1-DIFLUOROETHANE
REFERENCE: EPA TO 3

SAMPLE TYPE: AIR
UNITS: PPM -V/V

METHOD BLANK

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
1,1-DIFLUOROETHANE	10.0	ND

ACCURACY (LAB CONTROL SAMPLE)

COMPOUND NAME	EXPECTED CONC	MEASURED CONC	PERCENT RECOVERY	LIMITS (PERCENT)
1,1-DIFLUOROETHANE	10000	11400	114	60-140

PRECISION (LAB CONTROL DUPLICATE)

COMPOUND NAME	SAMPLE RESULT	DUPLICATE RESULT	RPD (PERCENT)	LIMITS (PERCENT)
1,1-DIFLUOROETHANE	11400	11400	0.0	±30

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE

