

Technical Memorandum

Date: January 2018
To: Los Angeles Regional Water Quality Control Board (LARWQCB)
From: Eric Smalstig and Cathy Villaroman, Geosyntec Consultants
Subject: **Addendum to HHRA dated May 2017, 777 North Front Street,
Burbank, California**

Introduction

On behalf of Northridge Properties, LLC, Geosyntec Consultants, Inc. (Geosyntec) has prepared this Technical Memorandum to present an addendum to the human health risk assessment (HHRA, dated May 2017) for the 8-acre proposed mixed use development at 777 North Front Street in Burbank, California (“Site”, **Figure 1**). The purpose of this HHRA Addendum was to evaluate the potential risk to human health associated with residual concentrations of chemicals detected in soil samples collected in October 2017 and in soil vapor samples collected in November 2017 by Geosyntec.

At LARWQCB’s request, Geosyntec performed additional soil and soil vapor sampling at the Site, which consisted of eight locations up to a depth of 88 feet (ft) below ground surface (bgs). This technical memorandum provides an evaluation of potential cancer risks and noncancer hazards associated with this recently collected data as it relates to the results presented in the May 2017 HHRA (Geosyntec, 2017). A summary of the detected volatile organic compounds (VOCs) in soil and soil vapor are presented in **Tables 1 and 2**. The overall approach used to estimate potential health risks to future residents, future commercial and construction workers was described in the HHRA report (Geosyntec, 2017). Note that the HHRA evaluated the planned use of the property as a mixed-use residential and commercial complex with proposed features including residential apartments, a hotel, ground floor commercial use, a park and bike hub with amphitheater style seating, multiple courtyards, and first floor as well as subterranean parking structures.

Human Health Risk Assessment

Risk-based concentrations (RBCs) were previously derived for soil and soil vapor in the HHRA. Potential exposures via incidental ingestion, dermal contact and outdoor air inhalation to chemicals detected in soil (**Table 1**), as well as potential vapor intrusion exposures to VOCs detected in soil vapor (**Table 2**) were evaluated for each sampling location by comparing the chemical concentration data to their respective RBCs. As discussed in the HHRA (Geosyntec, 2017), various demarcations of acceptable risk have been established by regulatory agencies. For future residents, Site-specific RBCs were derived using a target cancer risk level of 1×10^{-6} . For future commercial workers and future construction workers, Site-specific RBCs were derived using a target cancer risk level of 1×10^{-5} . This target risk of 1×10^{-5} for potential worker exposures has been used in many DTSC-approved risk assessments. It should be noted that the risk results presented in the risk characterization are independent of the target cancer risk used to derive the Site-specific RBCs and are therefore not affected by that assumption. The target hazard quotient (THQ) used for noncarcinogens of 1 was used for all receptor groups.

Potential cancer risks and noncancer hazards estimated in this HHRA Addendum is based on soil and soil vapor data collected more recently in 2017.

Results of the Human Health Risk Assessment

Cumulative cancer risks (CRs) and noncancer hazard indices (HIs) for each soil sample location are summarized in **Table 3** for future residents, future commercial workers, and future construction workers. Cumulative CRs and HIs for each soil vapor sample location are summarized in **Table 4** for future residents and future commercial workers for the slab-on-grade scenario, and in **Table 5** for the second floor scenario. The detailed cancer risk and noncancer hazard calculation spreadsheets are presented in **Attachment A**.

The results for each receptor and exposure pathway scenarios are summarized in the following subsections in relation to the target cancer risk and target noncancer hazard mentioned above.

Future Resident

Soil

Soil risk characterization results for future residents potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 3**.

For the soil exposure pathways, the cumulative CR estimates for future residents were below the target cancer risk of 1×10^{-6} at all four sample locations, ranging from 5×10^{-10} to 1×10^{-7} . The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 3×10^{-6} to 5×10^{-4} .

Soil Vapor to Indoor Air

Soil vapor risk characterization results for future residents potentially exposed via indoor air inhalation for individual sampling locations are provided in **Table 4** for the slab-on-grade scenario and in **Table 5** for the second floor exposure scenario.

For the slab-on-grade scenario, the cumulative CR estimates for future residents ranged from 8×10^{-8} to 2×10^{-4} and exceeded the target risk of 1×10^{-6} at locations NP-2, NP-3, and NP-4. PCE was the primary risk driver. The cumulative HI estimates ranging from 1×10^{-3} to 3×10^0 were below the target hazard of 1 at all sample locations except for NP-3, with PCE as the primary HI driver (**Table 4**).

For the second floor exposure scenario, the cumulative CR estimates for future residents ranged from 1×10^{-9} to 3×10^{-6} and exceeded the target risk of 1×10^{-6} at only one sample location (NP-3). PCE was the primary risk driver. The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 2×10^{-5} to 4×10^{-2} (**Table 5**).

Future Commercial Worker

Soil

Soil risk characterization results for future commercial workers potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 3**.

For the soil exposure pathways, the cumulative CR estimates for future commercial workers were below the target cancer risk of 1×10^{-5} at all sample locations, ranging from 1×10^{-10} to 2×10^{-8} . The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 5×10^{-7} to 1×10^{-4} .

Soil Vapor to Indoor Air

Soil vapor risk characterization results for future commercial workers potentially exposed via indoor air inhalation for individual sampling locations are provided in **Table 4** for the slab-on-grade scenario and in **Table 5** for the second floor exposure scenario.

For the slab-on-grade scenario, the cumulative CR estimates for future commercial workers ranged from 6×10^{-9} to 2×10^{-5} and exceeded the target risk of 1×10^{-5} at only one sample location (NP-3). PCE was the primary risk driver at this location. The cumulative HI estimates were less than the target hazard of 1 at all sample locations, ranging from 1×10^{-4} to 2×10^{-1} (**Table 4**).

For the second floor exposure scenario, the cumulative CR estimates for future commercial workers was below the target risk of 1×10^{-5} at all sample locations, ranging from 3×10^{-10} to 7×10^{-7} . The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 4×10^{-6} to 1×10^{-2} (**Table 5**).

Future Construction Worker

Soil

Soil risk characterization results for future construction workers potentially exposed via ingestion, dermal contact, and outdoor inhalation for individual sampling locations with COPCs selected for this medium are provided in **Table 3**.

For the soil exposure pathways, the cumulative CR estimates for future construction workers were below the target risk of 1×10^{-5} at all four sample locations, ranging from 2×10^{-11} to 4×10^{-9} . The cumulative HI estimates were below the target hazard of 1 at all sample locations, ranging from 3×10^{-6} to 7×10^{-4} .

Summary and Conclusions

This HHRA Addendum was prepared consistent with Cal-EPA and USEPA guidance. Potential cancer risk and noncancer hazard to future residents, future commercial workers, and future construction workers were evaluated assuming exposure occurs to residual COPC concentrations detected in soil and soil vapor samples collected from the Site. Mixed residential and commercial land use is planned for this Site; therefore, both of these scenarios were evaluated in this HHRA Addendum.

The cancer risk and noncancer hazard estimates presented in this HHRA likely over-estimate potential health risk because several conservative assumptions were used throughout the

HHRA process. Moreover, no engineering or other controls were included in the assessment that would reduce or mitigate exposures post-development.

The CRs and HIs calculated using the recent soil and soil vapor data are similar to previously reported results (Geosyntec, 2017).

For future residents, the cumulative CRs and HIs were below the target goals of 1×10^{-6} and 1, respectively, at all four soil sample locations recently sampled. For the soil vapor to indoor air pathway under the slab-on-grade scenario, the cumulative CR estimates for future residents exceeded the target risk of 1×10^{-6} at three sample locations, and the cumulative HI estimates were below the target hazard of 1 at all but one sample location. For the soil vapor to indoor air pathway under the second floor scenario, the cumulative CR estimates for future residents exceeded the target risk of 1×10^{-6} at only one sample location, and the cumulative HI estimates were below the target hazard at all sample locations.

For future commercial workers, the cumulative CRs and HIs were below the target goals of 1×10^{-5} and 1, respectively, at all four soil sample locations. For the soil vapor to indoor air pathway under the slab-on-grade scenario, the cumulative CR estimates for future commercial workers exceeded the target risk of 1×10^{-5} at only one sample location, and the cumulative HI estimates were below the target hazard of 1 at all sample locations. For the soil vapor to indoor air pathway under the second floor scenario, the cumulative CR and HI estimates for future commercial workers were below the target goals of 1×10^{-5} and 1, respectively, at all sample locations.

For future construction workers, the cumulative CRs and HIs were below the target goals of 1×10^{-5} and 1, respectively, at all four soil sample locations.

The results of this HHRA Addendum, similar to the HHRA, indicate that, given planned future mixed residential and commercial land uses, residual concentrations of COPCs that remain in the subsurface are not expected to pose a significant health concern across the Site. However, select sample locations have COPC concentrations that have the potential to impact human health and should therefore be considered further during development planning.

References

Geosyntec Consultants 2017. Draft Human Health Risk Assessment. 777 North Front Street, Burbank California. January.

Attachments

List of Tables

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TABLES

TABLE 1
2017 Supplemental Investigation - Soil Data
777 N. Front Street
Burbank, California

Location	Depth (ft)	Date Sampled	Benzene	PCE	Toluene	TCE
NP-1	12	10/9/2017	< 0.73	< 0.73	< 0.73	< 1.5
	22	10/9/2017	< 0.80	< 0.80	< 0.80	< 1.6
	50	10/9/2017	2.9	< 0.84	1.4	< 1.7
	67	10/9/2017	< 0.95	< 0.95	< 0.95	< 1.9
	88	10/9/2017	< 0.95	< 0.95	< 0.95	< 1.9
NP-2	6	10/9/2017	< 0.97	30	< 0.97	< 1.9
	28	10/9/2017	< 0.88	26	< 0.88	< 1.8
	36	10/9/2017	1.2	110	< 0.87	< 1.7
	50	10/10/2017	1.1	65	< 0.90	< 1.8
	80	10/10/2017	< 0.91	12	< 0.91	< 1.8
NP-3	12	10/10/2017	< 1.0	91	< 1.0	< 2.0
	16	10/10/2017	< 6.1	99	< 47	< 14
	32	10/10/2017	< 6.2	< 10	< 48	< 14
	46	10/10/2017	< 6.8	< 11	< 52	< 16
NP-4	10	10/11/2017	< 6.3	< 49	< 49	< 15
	18	10/11/2017	< 6.7	< 52	< 52	< 16
	40	10/11/2017	< 6.5	28 J	< 50	< 15
	58	10/11/2017	< 7.6	< 12	< 59	< 18
	80	10/11/2017	< 6.1	20 J	< 47	< 14
NP-5	18	10/11/2017	< 6.3	< 48	< 48	< 15
	36	10/11/2017	< 6.0	< 9.8	< 47	< 14
	45	10/11/2017	1.3	< 0.91	1.6	< 1.8
	56	10/11/2017	< 0.88	2.4	< 0.88	3.0
NP-6	16	10/13/2017	< 0.82	< 0.82	< 0.82	< 1.6
	26	10/13/2017	< 0.90	< 0.90	< 0.90	< 1.8
	40	10/13/2017	< 0.90	< 0.90	< 0.90	< 1.8
	55	10/13/2017	< 0.99	< 0.99	< 0.99	< 2.0
	88	10/13/2017	< 1.1	< 1.1	< 1.1	< 2.3
NP-7	22	10/12/2017	< 0.89	< 0.89	< 0.89	< 1.8
	34	10/12/2017	< 0.97	< 0.97	< 0.97	< 1.9
	49	10/12/2017	< 0.86	< 0.86	< 0.86	< 1.7
NP-8	18	10/12/2017	< 0.80	< 0.80	< 0.80	< 1.6
	24	10/12/2017	< 0.78	< 0.78	< 0.78	< 1.6
	42	10/12/2017	< 0.82	< 0.82	< 0.82	< 1.6
	59	10/12/2017	< 5.7	< 9.2	< 44	< 13
	81	10/12/2017	< 5.8	120	< 44	79 J

Notes:

All units are presented in µg/kg

< = less than specified RL with the exception of cells highlighted in green which are listed as

Bold = detected above the RL

= estimated values ("J") detected between MDL and RL, and above one of the noted screen

3. Other constituents were not detected above the RL.

TABLE 2
2017 Supplemental Investigation - Soil Vapor Data
777 N. Front Street
Burbank, California

Location	Depth (ft bgs)	Carbon Tetrachloride	Chloroform	Dichlorodifluoromethane/Freon 12	1,1-Dichloroethane	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 113	1,1,1,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (1,1,1-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane/Freon 11
NP-1	19	ND<8	ND<8	79	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	26,500	ND<8	1100	38	ND<8
	19-Rep	ND<8	ND<8	90	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	20,000	ND<8	1090	82	ND<8
	49	ND<8	10	1720	ND<8	192	ND<8	ND<8	76	ND<8	21,800	ND<8	1010	54	ND<8
	70	ND<8	21	2530	ND<8	443	ND<8	ND<8	98	ND<8	13,200	ND<8	455	86	ND<8
	85	ND<8	22	2900	260	1090	ND<8	ND<8	ND<40	11	46,200	ND<8	157	508	ND<8
NP-2 ¹	15	ND<8	29	357	ND<8	ND<8	31	ND<8	ND<40	145	1,270,000	ND<8	ND<8	3350	ND<8
	37	ND<8	16	ND<8	ND<8	ND<8	ND<8	ND<8	41	147	1,450,000	ND<8	ND<8	2600	ND<8
	51	ND<8	93	ND<8	ND<8	45	ND<8	8	141	514	3,150,000	10	ND<8	3990	ND<8
	81	ND<8	109	ND<8	ND<8	129	ND<8	ND<8	108	131	1,570,000	ND<8	ND<8	3380	ND<8
NP-3 ²	13	ND<8	83	208	ND<8	ND<8	ND<8	10	ND<40	502	5,120,000	ND<8	ND<8	5120	ND<8
	33	ND<8	98	471	ND<8	14	20	10	ND<40	1240	8,030,000	20	8	4790	ND<8
	53	ND<8	181	ND<8	ND<8	ND<8	ND<8	ND<8	ND<40	587	3,480,000	ND<8	ND<8	3210	ND<8
NP-4 ³	13	ND<8	ND<8	485	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	1,890,000	ND<8	15	2340	ND<8
	35	ND<8	ND<8	ND<8	ND<8	26	ND<8	ND<8	84	5530	1,790,000	ND<8	ND<8	3430	ND<8
	51	ND<8	336	762	ND<8	22	ND<8	ND<8	46	124	684,000	ND<8	ND<8	2550	ND<8
	83	ND<8	1040	ND<8	ND<8	61	ND<8	ND<8	71	31	781,000	ND<8	ND<8	4950	ND<8
NP-5	15	ND<8	14	303	ND<8	ND<8	ND<8	ND<8	42	ND<8	6,610	ND<8	ND<8	7320	ND<8
	35	ND<8	120	1940	ND<8	102	ND<8	ND<8	229	ND<8	20,800	ND<8	ND<8	18900	ND<8
	57	ND<8	457	1070	ND<8	205	ND<8	ND<8	116	ND<8	18,000	ND<8	ND<8	11700	ND<8
NP-6	15	ND<8	ND<8	60	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	5,580	ND<8	22	13	ND<8
	40	ND<8	ND<8	ND<8	ND<8	462	ND<8	ND<8	ND<40	ND<8	5,580	ND<8	ND<8	178	ND<8
	60	ND<8	22	329	ND<8	502	ND<8	ND<8	ND<40	ND<8	4,440	ND<8	13	678	ND<8
	86	ND<8	ND<8	ND<8	ND<8	163	ND<8	ND<8	ND<40	ND<8	5,220	ND<8	ND<8	173	ND<8
NP-7	17	ND<8	ND<8	624	ND<8	ND<8	ND<8	ND<8	53	ND<8	5,450	ND<8	19.3	28.4	ND<8
	17-Rep	ND<8	ND<8	625	ND<8	ND<8	ND<8	ND<8	55	ND<8	5,920	ND<8	20.0	20	8
	35	ND<8	18	1830	ND<8	134	ND<8	ND<8	159	ND<8	7,920	ND<8	14.3	1160	18
	53	14	47	1040	9	991	ND<8	ND<8	117	ND<8	8,410	ND<8	20.4	3080	ND<8
NP-8	17	30	ND<8	33	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	2,290	ND<8	225	ND	ND<8
	37	34	ND<8	184	ND<8	109	ND<8	ND<8	ND<40	ND<8	3,440	ND<8	250	18	ND<8
	37-Rep	32	ND<8	181	ND<8	103	ND<8	ND<8	ND<40	ND<8	2,900	ND<8	242	17	ND<8
	57	9	ND<8	363	ND<8	1210	ND<8	ND<8	105	ND<8	3,370	ND<8	197	429	ND<8
	80	27	ND<8	450	ND<8	3840	ND<8	ND<8	186	ND<8	5,980	ND<8	196	2310	ND<8

Notes:

All units are presented in $\mu\text{g}/\text{m}^3$

< = less than specified RL

1. PCE was analyzed at 250 dilution

2. PCE was analyzed at 2500 dilution

3. PCE was analyzed at 250 dilution

4. Other constituents were not detected above the RL.

Table 3
 Cumulative Cancer Risk and Noncancer Hazard, Soil
 777 North Front Street
 Burbank, California

Boring Location	Sample Depth (ft bgs)	Future Resident		Future Commercial Worker		Future Construction Worker	
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard
NP-1	12	5E-10	3E-06	1E-10	5E-07	2E-11	3E-06
NP-2	6	3E-08	2E-04	7E-09	3E-05	1E-09	2E-04
NP-3	12	1E-07	5E-04	2E-08	1E-04	4E-09	7E-04
NP-4	10	1E-08	7E-05	3E-09	1E-05	5E-10	9E-05

Notes:

" -- " not applicable; ft bgs - feet below ground surface

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

None of the locations exceeded a target risk or a target hazard.

Table 4
 Cumulative Cancer Risk and Noncancer Hazard
 Soil Vapor to Indoor Air, Slab-on-Grade Scenario
 777 North Front Street
 Burbank, California

Boring ID	Sample Depth (ft bgs)	Future Resident		Future Commercial Worker		Cancer Risk and/or Noncancer Hazard Drivers
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	
NP-1	19	1E-06	1E-02	8E-08	1E-03	
NP-1	49	5E-07	7E-03	4E-08	5E-04	
NP-1	70	3E-07	5E-03	2E-08	4E-04	
NP-1	85	7E-07	1E-02	6E-08	9E-04	
NP-2	15	5E-05	7E-01	4E-06	6E-02	PCE
NP-2	37	4E-05	6E-01	3E-06	5E-02	PCE
NP-2	51	7E-05	9E-01	5E-06	7E-02	PCE
NP-2	81	2E-05	3E-01	2E-06	3E-02	PCE
NP-3	13	2E-04	3E+00	2E-05	2E-01	PCE
NP-3	33	2E-04	3E+00	2E-05	2E-01	PCE
NP-3	53	8E-05	1E+00	6E-06	8E-02	PCE
NP-4	13	8E-05	1E+00	6E-06	8E-02	PCE
NP-4	35	5E-05	7E-01	4E-06	6E-02	PCE
NP-4	51	1E-05	2E-01	1E-06	2E-02	PCE
NP-4	83	1E-05	2E-01	9E-07	1E-02	PCE
NP-5	15	7E-07	1E-01	4E-08	8E-03	
NP-5	35	1E-06	2E-01	9E-08	1E-02	
NP-5	57	8E-07	8E-02	5E-08	7E-03	
NP-6	15	2E-07	3E-03	2E-08	3E-04	
NP-6	40	2E-07	4E-03	1E-08	3E-04	
NP-6	60	1E-07	6E-03	9E-09	5E-04	
NP-6	86	8E-08	2E-03	6E-09	1E-04	
NP-7	17	3E-07	4E-03	2E-08	3E-04	
NP-7	35	3E-07	1E-02	2E-08	1E-03	
NP-7	53	3E-07	2E-02	2E-08	2E-03	
NP-8	17	1E-07	1E-03	8E-09	1E-04	
NP-8	37	1E-07	2E-03	9E-09	1E-04	
NP-8	57	9E-08	4E-03	6E-09	3E-04	
NP-8	80	1E-07	1E-02	1E-08	1E-03	

Notes:

ft bgs - feet below ground surface

PCE - tetrachloroethylene

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk and/or cumulative hazard > target hazard

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

Table 5
 Cumulative Cancer Risk and Noncancer Hazard
 Soil Vapor to Indoor Air, Second Floor Scenario
 777 North Front Street
 Burbank, California

Boring ID	Sample Depth (ft bgs)	Future Resident		Future Commercial Worker		Cancer Risk and/or Noncancer Hazard Drivers
		Cancer Risk	Noncancer Hazard	Cancer Risk	Noncancer Hazard	
NP-1	19	1E-08	2E-04	3E-09	4E-05	
NP-1	49	6E-09	9E-05	1E-09	2E-05	
NP-1	70	4E-09	6E-05	9E-10	1E-05	
NP-1	85	1E-08	2E-04	2E-09	4E-05	
NP-2	15	7E-07	1E-02	2E-07	2E-03	
NP-2	37	6E-07	8E-03	1E-07	2E-03	
NP-2	51	9E-07	1E-02	2E-07	3E-03	
NP-2	81	3E-07	4E-03	7E-08	1E-03	
NP-3	13	3E-06	4E-02	7E-07	9E-03	PCE
NP-3	33	3E-06	4E-02	7E-07	1E-02	PCE
NP-3	53	1E-06	1E-02	2E-07	3E-03	
NP-4	13	1E-06	1E-02	2E-07	3E-03	
NP-4	35	7E-07	1E-02	2E-07	2E-03	
NP-4	51	2E-07	3E-03	5E-08	7E-04	
NP-4	83	2E-07	2E-03	4E-08	6E-04	
NP-5	15	9E-09	1E-03	2E-09	3E-04	
NP-5	35	2E-08	2E-03	4E-09	6E-04	
NP-5	57	1E-08	1E-03	2E-09	3E-04	
NP-6	15	3E-09	4E-05	7E-10	1E-05	
NP-6	40	2E-09	5E-05	5E-10	1E-05	
NP-6	60	2E-09	8E-05	3E-10	2E-05	
NP-6	86	1E-09	2E-05	3E-10	6E-06	
NP-7	17	3E-09	5E-05	8E-10	1E-05	
NP-7	35	4E-09	2E-04	8E-10	4E-05	
NP-7	53	4E-09	3E-04	8E-10	7E-05	
NP-8	17	1E-09	2E-05	3E-10	4E-06	
NP-8	37	2E-09	2E-05	3E-10	5E-06	
NP-8	57	1E-09	5E-05	3E-10	1E-05	
NP-8	80	2E-09	2E-04	4E-10	4E-05	

Notes:

ft bgs - feet below ground surface

PCE - tetrachloroethylene

Target cancer risk (CR) = 10^{-6} for residents and 10^{-5} for workers and target noncancer hazard index (HI) = 1

Shaded/bold: indicates cumulative risk > target risk and/or cumulative hazard > target hazard

Risk drivers are those chemicals that have a cancer risk > target CR or a noncancer hazard > target HI

FIGURES







ATTACHMENT A

Cumulative Risk Evaluation

Location ID	Depth (ft bgs)	Sample ID	Sample Date	CAS Number	Analyte	Soil Concentration (mg/kg)	Bkgd (mg/kg)	Within Bkgd?	Future Resident				Future Commercial Worker				Future Construction Worker			
									RBC _{soil-NC} (mg/kg)	RBC _{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	RBC _{soil-NC} (mg/kg)	RBC _{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk	RBC _{soil-NC} (mg/kg)	RBC _{soil-C} (mg/kg)	Noncancer Hazard	Cancer Risk
NP-1	12	NP-1-12	10/9/2017	127-18-4	Tetrachloroethene (PCE)	0.00047	--	--	1.8E+02	9.5E-01	2.6E-06	5.0E-10	1.0E+03	4.3E+01	4.7E-07	1.1E-10	1.5E+02	2.4E+02	3.2E-06	1.9E-11
NP-1	12	NP-1-12	10/9/2017	67-64-1	Acetone	0.0062	--	--	6.7E+04	--	9.3E-08	--	8.7E+05	--	7.1E-09	--	2.2E+05	--	2.8E-08	--
											3E-06	5E-10			5E-07	1E-10			3E-06	2E-11
NP-2	6	NP-2-6	10/9/2017	67-64-1	Acetone	0.027	--	--	6.7E+04	--	4.0E-07	--	8.7E+05	--	3.1E-08	--	2.2E+05	--	1.2E-07	--
NP-2	6	NP-2-6	10/9/2017	71-43-2	Benzene	0.00017	--	--	3.4E+01	1.0E+00	5.0E-06	1.7E-10	1.5E+02	4.4E+01	1.1E-06	3.9E-11	2.1E+01	1.6E+02	8.0E-06	1.0E-11
NP-2	6	NP-2-6	10/9/2017	127-18-4	Tetrachloroethene (PCE)	0.03	--	--	1.8E+02	9.5E-01	1.7E-04	3.2E-08	1.0E+03	4.3E+01	3.0E-05	6.9E-09	1.5E+02	2.4E+02	2.0E-04	1.2E-09
											2E-04	3E-08			3E-05	7E-09			2E-04	1E-09
NP-3	12	NP-3-12	10/10/2017	67-64-1	Acetone	0.0083	--	--	6.7E+04	--	1.2E-07	--	8.7E+05	--	9.5E-09	--	2.2E+05	--	3.8E-08	--
NP-3	12	NP-3-12	10/10/2017	71-43-2	Benzene	0.00019	--	--	3.4E+01	1.0E+00	5.6E-06	1.9E-10	1.5E+02	4.4E+01	1.2E-06	4.3E-11	2.1E+01	1.6E+02	9.0E-06	1.2E-11
NP-3	12	NP-3-12	10/10/2017	127-18-4	Tetrachloroethene (PCE)	0.091	--	--	1.8E+02	9.5E-01	5.1E-04	9.6E-08	1.0E+03	4.3E+01	9.0E-05	2.1E-08	1.5E+02	2.4E+02	6.1E-04	3.7E-09
NP-3	12	NP-3-12	10/10/2017	79-01-6	Trichloroethene (TCE)	0.00031	--	--	1.1E+01	2.5E+00	2.8E-05	1.2E-10	5.8E+01	1.7E+02	5.3E-06	1.8E-11	8.4E+00	6.6E+02	3.7E-05	4.7E-12
											5E-04	1E-07			1E-04	2E-08			7E-04	4E-09
NP-4	10	NP-4-10	10/11/2017	127-18-4	Tetrachloroethene (PCE)	0.013	--	--	1.8E+02	9.5E-01	7.3E-05	1.4E-08	1.0E+03	4.3E+01	1.3E-05	3.0E-09	1.5E+02	2.4E+02	8.7E-05	5.3E-10

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Attachment A Table A-2
 Cumulative Risk Evaluation
 Soil Vapor to Indoor Air Pathway
 Slab-on-Grade Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1100	--	5.9E+08	--	1.9E-06	--	4.7E+07	--	2.3E-05
NP-1	11/16/2017	19	20	75-71-8	Freon 12	78.8	--	5.1E+07	--	1.6E-06	--	4.0E+06	--	2.0E-05
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	26500	3.5E+06	2.7E+07	7.6E-08	1.0E-03	2.7E+04	2.1E+06	1.0E-06	1.3E-02
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	38	3.8E+06	1.1E+06	1.0E-10	3.4E-05	2.0E+04	8.9E+04	1.9E-09	4.3E-04
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1090	--	5.9E+08	--	1.8E-06	--	4.7E+07	--	2.3E-05
NP-1	11/16/2017	19	20	75-71-8	Freon 12	89.6	--	5.1E+07	--	1.8E-06	--	4.0E+06	--	2.2E-05
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	20000	3.5E+06	2.7E+07	5.7E-08	7.5E-04	2.7E+04	2.1E+06	7.5E-07	9.5E-03
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	81.8	3.8E+06	1.1E+06	2.1E-10	7.3E-05	2.0E+04	8.9E+04	4.0E-09	9.2E-04
NP-1	11/16/2017	49	50	71-55-6	1,1,1-Trichloroethane	1010	--	1.0E+09	--	9.9E-07	--	8.0E+07	--	1.3E-05
NP-1	11/16/2017	49	50	75-35-4	1,1-Dichloroethene	192	--	5.4E+07	--	3.6E-06	--	4.3E+06	--	4.5E-05
NP-1	11/16/2017	49	50	67-66-3	Chloroform	10.3	1.0E+06	8.4E+07	9.9E-11	1.2E-07	8.1E+03	6.8E+06	1.3E-09	1.5E-06
NP-1	11/16/2017	49	50	75-69-4	Freon 11	5	--	1.2E+09	--	4.1E-09	--	9.6E+07	--	5.2E-08
NP-1	11/16/2017	49	50	76-13-1	Freon 113	75.8	--	5.3E+10	--	1.4E-09	--	4.2E+09	--	1.8E-08
NP-1	11/16/2017	49	50	75-71-8	Freon 12	1720	--	8.8E+07	--	2.0E-05	--	7.0E+06	--	2.5E-04
NP-1	11/16/2017	49	50	127-18-4	Tetrachloroethene (PCE)	21800	6.1E+06	4.6E+07	3.6E-08	4.7E-04	4.6E+04	3.7E+06	4.7E-07	6.0E-03
NP-1	11/16/2017	49	50	79-01-6	Trichloroethene (TCE)	54.2	6.5E+06	1.9E+06	8.3E-11	2.8E-05	3.4E+04	1.5E+05	1.6E-09	3.6E-04
NP-1	11/16/2017	70	50	71-55-6	1,1,1-Trichloroethane	455	--	1.0E+09	--	4.5E-07	--	8.0E+07	--	5.7E-06
NP-1	11/16/2017	70	50	75-35-4	1,1-Dichloroethene	443	--	5.4E+07	--	8.2E-06	--	4.3E+06	--	1.0E-04
NP-1	11/16/2017	70	50	67-66-3	Chloroform	20.8	1.0E+06	8.4E+07	2.0E-10	2.5E-07	8.1E+03	6.8E+06	2.6E-09	3.1E-06
NP-1	11/16/2017	70	50	75-27-4	Dichlorobromomethane	6	8.7E+05	9.2E+07	6.9E-11	6.5E-08	6.9E+03	7.6E+06	8.7E-10	7.9E-07
NP-1	11/16/2017	70	50	76-13-1	Freon 113	97.6	--	5.3E+10	--	1.9E-09	--	4.2E+09	--	2.3E-08
NP-1	11/16/2017	70	50	75-71-8	Freon 12	2530	--	8.8E+07	--	2.9E-05	--	7.0E+06	--	3.6E-04
NP-1	11/16/2017	70	50	127-18-4	Tetrachloroethene (PCE)	13200	6.1E+06	4.6E+07	2.2E-08	2.8E-04	4.6E+04	3.7E+06	2.9E-07	3.6E-03
NP-1	11/16/2017	70	50	79-01-6	Trichloroethene (TCE)	86	6.5E+06	1.9E+06	1.3E-10	4.5E-05	3.4E+04	1.5E+05	2.5E-09	5.8E-04
NP-1	11/16/2017	85	80	630-20-6	1,1,1,2-Tetrachloroethane	11.1	7.2E+06	2.3E+08	1.5E-11	4.9E-08	5.6E+04	1.8E+07	2.0E-10	6.0E-07
NP-1	11/16/2017	85	80	71-55-6	1,1,1-Trichloroethane	157	--	1.5E+09	--	1.1E-07	--	1.1E+08	--	1.4E-06
NP-1	11/16/2017	85	80	75-34-3	1,1-Dichloroethane	260	2.0E+07	9.0E+08	1.3E-10	2.9E-07	1.5E+05	7.0E+07	1.8E-09	3.7E-06
NP-1	11/16/2017	85	80	75-35-4	1,1-Dichloroethene	1090	--	7.7E+07	--	1.4E-05	--	6.1E+06	--	1.8E-04
NP-1	11/16/2017	85	80	67-66-3	Chloroform	21.8	1.5E+06	1.2E+08	1.5E-10	1.8E-07	1.1E+04	9.3E+06	2.0E-09	2.3E-06
NP-1	11/16/2017	85	80	75-27-4	Dichlorobromomethane	5	1.2E+06	1.3E+08	4.1E-11	3.9E-08	9.5E+03	1.0E+07	5.3E-10	4.8E-07
NP-1	11/16/2017	85	80	76-13-1	Freon 113	34	--	7.3E+10	--	4.7E-10	--	5.9E+09	--	5.8E-09
NP-1	11/16/2017	85	80	75-71-8	Freon 12	2900	--	1.3E+08	--	2.3E-05	--	9.5E+06	--	3.1E-04

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 Soil Vapor to Indoor Air Pathway
 Slab-on-Grade Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	85	80	127-18-4	Tetrachloroethene (PCE)	46200	8.4E+06	6.4E+07	5.5E-08	7.2E-04	6.5E+04	5.1E+06	7.1E-07	9.0E-03
NP-1	11/16/2017	85	80	79-01-6	Trichloroethene (TCE)	508	9.3E+06	2.7E+06	5.4E-10	1.9E-04	5.0E+04	2.2E+05	1.0E-08	2.3E-03
NP-2	11/16/2017	15	15	630-20-6	1,1,1,2-Tetrachloroethane	145	2.6E+06	8.2E+07	5.6E-10	1.8E-06	2.0E+04	6.5E+06	7.4E-09	2.2E-05
NP-2	11/16/2017	15	15	67-66-3	Chloroform	28.7	5.3E+05	4.3E+07	5.4E-10	6.7E-07	4.1E+03	3.4E+06	7.1E-09	8.5E-06
NP-2	11/16/2017	15	15	156-59-2	cis-1,2-Dichloroethene	30.9	--	3.0E+06	--	1.0E-05	--	2.4E+05	--	1.3E-04
NP-2	11/16/2017	15	15	76-13-1	Freon 113	8	--	2.7E+10	--	3.0E-10	--	2.1E+09	--	3.7E-09
NP-2	11/16/2017	15	15	75-71-8	Freon 12	357	--	4.5E+07	--	8.0E-06	--	3.5E+06	--	1.0E-04
NP-2	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	1270000	3.1E+06	2.3E+07	4.1E-06	5.4E-02	2.3E+04	1.9E+06	5.4E-05	6.8E-01
NP-2	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	3350	3.4E+06	9.8E+05	1.0E-08	3.4E-03	1.8E+04	7.8E+04	1.9E-07	4.3E-02
NP-2	11/16/2017	37	30	630-20-6	1,1,1,2-Tetrachloroethane	147	3.7E+06	1.2E+08	4.0E-10	1.3E-06	2.8E+04	9.2E+06	5.3E-09	1.6E-05
NP-2	11/16/2017	37	30	67-66-3	Chloroform	16.2	7.5E+05	6.0E+07	2.2E-10	2.7E-07	5.7E+03	4.8E+06	2.8E-09	3.4E-06
NP-2	11/16/2017	37	30	76-13-1	Freon 113	41	--	3.8E+10	--	1.1E-09	--	3.0E+09	--	1.4E-08
NP-2	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	1450000	4.3E+06	3.3E+07	3.4E-06	4.4E-02	3.3E+04	2.6E+06	4.4E-05	5.5E-01
NP-2	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	2600	4.7E+06	1.4E+06	5.5E-09	1.9E-03	2.5E+04	1.1E+05	1.0E-07	2.4E-02
NP-2	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	514	5.2E+06	1.6E+08	9.9E-10	3.1E-06	3.9E+04	1.3E+07	1.3E-08	4.0E-05
NP-2	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	44.8	--	5.4E+07	--	8.3E-07	--	4.3E+06	--	1.0E-05
NP-2	11/16/2017	51	50	67-66-3	Chloroform	92.6	1.0E+06	8.4E+07	8.9E-10	1.1E-06	8.1E+03	6.8E+06	1.1E-08	1.4E-05
NP-2	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	8.7E+05	9.2E+07	4.6E-11	4.3E-08	6.9E+03	7.6E+06	5.8E-10	5.3E-07
NP-2	11/16/2017	51	50	75-69-4	Freon 11	5	--	1.2E+09	--	4.1E-09	--	9.6E+07	--	5.2E-08
NP-2	11/16/2017	51	50	76-13-1	Freon 113	141	--	5.3E+10	--	2.7E-09	--	4.2E+09	--	3.4E-08
NP-2	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	3150000	6.1E+06	4.6E+07	5.2E-06	6.8E-02	4.6E+04	3.7E+06	6.8E-05	8.6E-01
NP-2	11/16/2017	51	50	108-88-3	Toluene	9.5	--	2.5E+08	--	3.8E-08	--	2.1E+07	--	4.6E-07
NP-2	11/16/2017	51	50	156-60-5	trans-1,2-Dichloroethene	8.2	--	6.0E+07	--	1.4E-07	--	4.9E+06	--	1.7E-06
NP-2	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	3990	6.5E+06	1.9E+06	6.1E-09	2.1E-03	3.4E+04	1.5E+05	1.2E-07	2.7E-02
NP-2	11/16/2017	81	80	630-20-6	1,1,1,2-Tetrachloroethane	131	7.2E+06	2.3E+08	1.8E-10	5.7E-07	5.6E+04	1.8E+07	2.3E-09	7.1E-06
NP-2	11/16/2017	81	80	75-35-4	1,1-Dichloroethene	129	--	7.7E+07	--	1.7E-06	--	6.1E+06	--	2.1E-05
NP-2	11/16/2017	81	80	67-66-3	Chloroform	109	1.5E+06	1.2E+08	7.4E-10	9.1E-07	1.1E+04	9.3E+06	9.8E-09	1.2E-05
NP-2	11/16/2017	81	80	76-13-1	Freon 113	108	--	7.3E+10	--	1.5E-09	--	5.9E+09	--	1.8E-08
NP-2	11/16/2017	81	80	127-18-4	Tetrachloroethene (PCE)	1570000	8.4E+06	6.4E+07	1.9E-06	2.5E-02	6.5E+04	5.1E+06	2.4E-05	3.1E-01
NP-2	11/16/2017	81	80	79-01-6	Trichloroethene (TCE)	3380	9.3E+06	2.7E+06	3.6E-09	1.2E-03	5.0E+04	2.2E+05	6.8E-08	1.6E-02
NP-3	11/16/2017	13	15	630-20-6	1,1,1,2-Tetrachloroethane	502	2.6E+06	8.2E+07	1.9E-09	6.1E-06	2.0E+04	6.5E+06	2.5E-08	7.7E-05
NP-3	11/16/2017	13	15	67-66-3	Chloroform	82.8	5.3E+05	4.3E+07	1.6E-09	1.9E-06	4.1E+03	3.4E+06	2.0E-08	2.4E-05

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							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-3	11/16/2017	13	15	76-13-1	Freon 113	17	--	2.7E+10	--	6.3E-10	--	2.1E+09	--	7.9E-09
NP-3	11/16/2017	13	15	75-71-8	Freon 12	208	--	4.5E+07	--	4.7E-06	--	3.5E+06	--	5.9E-05
NP-3	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	5120000	3.1E+06	2.3E+07	1.7E-05	2.2E-01	2.3E+04	1.9E+06	2.2E-04	2.8E+00
NP-3	11/16/2017	13	15	156-60-5	trans-1,2-Dichloroethene	9.6	--	3.2E+07	--	3.0E-07	--	2.5E+06	--	3.9E-06
NP-3	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	5120	3.4E+06	9.8E+05	1.5E-08	5.2E-03	1.8E+04	7.8E+04	2.9E-07	6.6E-02
NP-3	11/16/2017	33	30	630-20-6	1,1,1,2-Tetrachloroethane	1240	3.7E+06	1.2E+08	3.4E-09	1.1E-05	2.8E+04	9.2E+06	4.4E-08	1.3E-04
NP-3	11/16/2017	33	30	71-55-6	1,1,1-Trichloroethane	8	--	7.4E+08	--	1.1E-08	--	5.8E+07	--	1.4E-07
NP-3	11/16/2017	33	30	75-35-4	1,1-Dichloroethene	13.6	--	3.9E+07	--	3.5E-07	--	3.1E+06	--	4.4E-06
NP-3	11/16/2017	33	30	67-66-3	Chloroform	97.8	7.5E+05	6.0E+07	1.3E-09	1.6E-06	5.7E+03	4.8E+06	1.7E-08	2.0E-05
NP-3	11/16/2017	33	30	156-59-2	cis-1,2-Dichloroethene	19.6	--	4.3E+06	--	4.6E-06	--	3.4E+05	--	5.7E-05
NP-3	11/16/2017	33	30	76-13-1	Freon 113	37	--	3.8E+10	--	9.7E-10	--	3.0E+09	--	1.2E-08
NP-3	11/16/2017	33	30	75-71-8	Freon 12	471	--	6.3E+07	--	7.5E-06	--	5.0E+06	--	9.4E-05
NP-3	11/16/2017	33	30	127-18-4	Tetrachloroethene (PCE)	8030000	4.3E+06	3.3E+07	1.9E-05	2.4E-01	3.3E+04	2.6E+06	2.4E-04	3.1E+00
NP-3	11/16/2017	33	30	108-88-3	Toluene	20.2	--	1.8E+08	--	1.1E-07	--	1.5E+07	--	1.4E-06
NP-3	11/16/2017	33	30	156-60-5	trans-1,2-Dichloroethene	10.2	--	4.4E+07	--	2.3E-07	--	3.5E+06	--	2.9E-06
NP-3	11/16/2017	33	30	79-01-6	Trichloroethene (TCE)	4790	4.7E+06	1.4E+06	1.0E-08	3.5E-03	2.5E+04	1.1E+05	1.9E-07	4.4E-02
NP-3	11/16/2017	53	50	630-20-6	1,1,1,2-Tetrachloroethane	587	5.2E+06	1.6E+08	1.1E-09	3.6E-06	3.9E+04	1.3E+07	1.5E-08	4.5E-05
NP-3	11/16/2017	53	50	67-66-3	Chloroform	181	1.0E+06	8.4E+07	1.7E-09	2.2E-06	8.1E+03	6.8E+06	2.2E-08	2.7E-05
NP-3	11/16/2017	53	50	76-13-1	Freon 113	37	--	5.3E+10	--	7.0E-10	--	4.2E+09	--	8.9E-09
NP-3	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	3480000	6.1E+06	4.6E+07	5.7E-06	7.5E-02	4.6E+04	3.7E+06	7.6E-05	9.5E-01
NP-3	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3210	6.5E+06	1.9E+06	4.9E-09	1.7E-03	3.4E+04	1.5E+05	9.4E-08	2.2E-02
NP-4	11/16/2017	13	15	71-55-6	1,1,1-Trichloroethane	15	--	5.2E+08	--	2.9E-08	--	4.1E+07	--	3.6E-07
NP-4	11/16/2017	13	15	76-13-1	Freon 113	32	--	2.7E+10	--	1.2E-09	--	2.1E+09	--	1.5E-08
NP-4	11/16/2017	13	15	75-71-8	Freon 12	485	--	4.5E+07	--	1.1E-05	--	3.5E+06	--	1.4E-04
NP-4	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	1890000	3.1E+06	2.3E+07	6.2E-06	8.1E-02	2.3E+04	1.9E+06	8.1E-05	1.0E+00
NP-4	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	2340	3.4E+06	9.8E+05	7.0E-09	2.4E-03	1.8E+04	7.8E+04	1.3E-07	3.0E-02
NP-4	11/16/2017	35	30	630-20-6	1,1,1,2-Tetrachloroethane	5530	3.7E+06	1.2E+08	1.5E-08	4.8E-05	2.8E+04	9.2E+06	2.0E-07	6.0E-04
NP-4	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	25.8	--	3.9E+07	--	6.7E-07	--	3.1E+06	--	8.4E-06
NP-4	11/16/2017	35	30	76-13-1	Freon 113	84.4	--	3.8E+10	--	2.2E-09	--	3.0E+09	--	2.8E-08
NP-4	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	1790000	4.3E+06	3.3E+07	4.1E-06	5.4E-02	3.3E+04	2.6E+06	5.4E-05	6.8E-01
NP-4	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	3430	4.7E+06	1.4E+06	7.2E-09	2.5E-03	2.5E+04	1.1E+05	1.4E-07	3.1E-02
NP-4	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	124	5.2E+06	1.6E+08	2.4E-10	7.5E-07	3.9E+04	1.3E+07	3.2E-09	9.6E-06

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Attachment A Table A-2
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 Soil Vapor to Indoor Air Pathway
 Slab-on-Grade Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-4	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	22.1	--	5.4E+07	--	4.1E-07	--	4.3E+06	--	5.1E-06
NP-4	11/16/2017	51	50	67-66-3	Chloroform	336	1.0E+06	8.4E+07	3.2E-09	4.0E-06	8.1E+03	6.8E+06	4.1E-08	4.9E-05
NP-4	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	8.7E+05	9.2E+07	4.6E-11	4.3E-08	6.9E+03	7.6E+06	5.8E-10	5.3E-07
NP-4	11/16/2017	51	50	76-13-1	Freon 113	45.9	--	5.3E+10	--	8.7E-10	--	4.2E+09	--	1.1E-08
NP-4	11/16/2017	51	50	75-71-8	Freon 12	762	--	8.8E+07	--	8.7E-06	--	7.0E+06	--	1.1E-04
NP-4	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	684000	6.1E+06	4.6E+07	1.1E-06	1.5E-02	4.6E+04	3.7E+06	1.5E-05	1.9E-01
NP-4	11/16/2017	51	50	108-88-3	Toluene	6	--	2.5E+08	--	2.4E-08	--	2.1E+07	--	2.9E-07
NP-4	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	2550	6.5E+06	1.9E+06	3.9E-09	1.3E-03	3.4E+04	1.5E+05	7.5E-08	1.7E-02
NP-4	11/16/2017	83	80	630-20-6	1,1,1,2-Tetrachloroethane	31.4	7.2E+06	2.3E+08	4.4E-11	1.4E-07	5.6E+04	1.8E+07	5.6E-10	1.7E-06
NP-4	11/16/2017	83	80	75-35-4	1,1-Dichloroethene	60.8	--	7.7E+07	--	7.9E-07	--	6.1E+06	--	1.0E-05
NP-4	11/16/2017	83	80	71-43-2	Benzene	4	1.0E+06	3.1E+06	4.0E-11	1.3E-06	7.4E+03	2.4E+05	5.4E-10	1.7E-05
NP-4	11/16/2017	83	80	67-66-3	Chloroform	1040	1.5E+06	1.2E+08	7.0E-09	8.7E-06	1.1E+04	9.3E+06	9.4E-08	1.1E-04
NP-4	11/16/2017	83	80	76-13-1	Freon 113	70.8	--	7.3E+10	--	9.7E-10	--	5.9E+09	--	1.2E-08
NP-4	11/16/2017	83	80	127-18-4	Tetrachloroethene (PCE)	781000	8.4E+06	6.4E+07	9.3E-07	1.2E-02	6.5E+04	5.1E+06	1.2E-05	1.5E-01
NP-4	11/16/2017	83	80	79-01-6	Trichloroethene (TCE)	4950	9.3E+06	2.7E+06	5.3E-09	1.8E-03	5.0E+04	2.2E+05	9.9E-08	2.3E-02
NP-5	11/16/2017	15	15	67-66-3	Chloroform	14.4	5.3E+05	4.3E+07	2.7E-10	3.4E-07	4.1E+03	3.4E+06	3.6E-09	4.2E-06
NP-5	11/16/2017	15	15	76-13-1	Freon 113	41.8	--	2.7E+10	--	1.6E-09	--	2.1E+09	--	2.0E-08
NP-5	11/16/2017	15	15	75-71-8	Freon 12	303	--	4.5E+07	--	6.8E-06	--	3.5E+06	--	8.5E-05
NP-5	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	6610	3.1E+06	2.3E+07	2.2E-08	2.8E-04	2.3E+04	1.9E+06	2.8E-07	3.6E-03
NP-5	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	7320	3.4E+06	9.8E+05	2.2E-08	7.4E-03	1.8E+04	7.8E+04	4.1E-07	9.4E-02
NP-5	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	7	--	7.4E+08	--	9.5E-09	--	5.8E+07	--	1.2E-07
NP-5	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	102	--	3.9E+07	--	2.6E-06	--	3.1E+06	--	3.3E-05
NP-5	11/16/2017	35	30	67-66-3	Chloroform	120	7.5E+05	6.0E+07	1.6E-09	2.0E-06	5.7E+03	4.8E+06	2.1E-08	2.5E-05
NP-5	11/16/2017	35	30	76-13-1	Freon 113	229	--	3.8E+10	--	6.0E-09	--	3.0E+09	--	7.6E-08
NP-5	11/16/2017	35	30	75-71-8	Freon 12	1940	--	6.3E+07	--	3.1E-05	--	5.0E+06	--	3.9E-04
NP-5	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	20800	4.3E+06	3.3E+07	4.8E-08	6.3E-04	3.3E+04	2.6E+06	6.3E-07	7.9E-03
NP-5	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	18900	4.7E+06	1.4E+06	4.0E-08	1.4E-02	2.5E+04	1.1E+05	7.5E-07	1.7E-01
NP-5	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	205	--	5.4E+07	--	3.8E-06	--	4.3E+06	--	4.8E-05
NP-5	11/16/2017	57	50	71-43-2	Benzene	7	7.2E+05	2.2E+06	9.8E-11	3.1E-06	5.4E+03	1.7E+05	1.3E-09	4.0E-05
NP-5	11/16/2017	57	50	67-66-3	Chloroform	457	1.0E+06	8.4E+07	4.4E-09	5.4E-06	8.1E+03	6.8E+06	5.6E-08	6.7E-05
NP-5	11/16/2017	57	50	76-13-1	Freon 113	116	--	5.3E+10	--	2.2E-09	--	4.2E+09	--	2.8E-08
NP-5	11/16/2017	57	50	75-71-8	Freon 12	1070	--	8.8E+07	--	1.2E-05	--	7.0E+06	--	1.5E-04

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Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-5	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	18000	6.1E+06	4.6E+07	3.0E-08	3.9E-04	4.6E+04	3.7E+06	3.9E-07	4.9E-03
NP-5	11/16/2017	57	50	108-88-3	Toluene	5	--	2.5E+08	--	2.0E-08	--	2.1E+07	--	2.4E-07
NP-5	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	11700	6.5E+06	1.9E+06	1.8E-08	6.1E-03	3.4E+04	1.5E+05	3.4E-07	7.9E-02
NP-6	11/16/2017	15	15	71-55-6	1,1,1-Trichloroethane	22.2	--	5.2E+08	--	4.3E-08	--	4.1E+07	--	5.4E-07
NP-6	11/16/2017	15	15	75-71-8	Freon 12	60.3	--	4.5E+07	--	1.3E-06	--	3.5E+06	--	1.7E-05
NP-6	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	5580	3.1E+06	2.3E+07	1.8E-08	2.4E-04	2.3E+04	1.9E+06	2.4E-07	3.0E-03
NP-6	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	13.2	3.4E+06	9.8E+05	3.9E-11	1.3E-05	1.8E+04	7.8E+04	7.4E-10	1.7E-04
NP-6	11/16/2017	40	30	75-35-4	1,1-Dichloroethene	462	--	3.9E+07	--	1.2E-05	--	3.1E+06	--	1.5E-04
NP-6	11/16/2017	40	30	76-13-1	Freon 113	21	--	3.8E+10	--	5.5E-10	--	3.0E+09	--	7.0E-09
NP-6	11/16/2017	40	30	127-18-4	Tetrachloroethene (PCE)	5580	4.3E+06	3.3E+07	1.3E-08	1.7E-04	3.3E+04	2.6E+06	1.7E-07	2.1E-03
NP-6	11/16/2017	40	30	79-01-6	Trichloroethene (TCE)	178	4.7E+06	1.4E+06	3.8E-10	1.3E-04	2.5E+04	1.1E+05	7.1E-09	1.6E-03
NP-6	11/16/2017	60	50	71-55-6	1,1,1-Trichloroethane	12.7	--	1.0E+09	--	1.2E-08	--	8.0E+07	--	1.6E-07
NP-6	11/16/2017	60	50	75-35-4	1,1-Dichloroethene	502	--	5.4E+07	--	9.3E-06	--	4.3E+06	--	1.2E-04
NP-6	11/16/2017	60	50	67-66-3	Chloroform	22.4	1.0E+06	8.4E+07	2.1E-10	2.7E-07	8.1E+03	6.8E+06	2.8E-09	3.3E-06
NP-6	11/16/2017	60	50	75-27-4	Dichlorobromomethane	4	8.7E+05	9.2E+07	4.6E-11	4.3E-08	6.9E+03	7.6E+06	5.8E-10	5.3E-07
NP-6	11/16/2017	60	50	76-13-1	Freon 113	33	--	5.3E+10	--	6.3E-10	--	4.2E+09	--	7.9E-09
NP-6	11/16/2017	60	50	75-71-8	Freon 12	329	--	8.8E+07	--	3.8E-06	--	7.0E+06	--	4.7E-05
NP-6	11/16/2017	60	50	127-18-4	Tetrachloroethene (PCE)	4440	6.1E+06	4.6E+07	7.3E-09	9.6E-05	4.6E+04	3.7E+06	9.6E-08	1.2E-03
NP-6	11/16/2017	60	50	79-01-6	Trichloroethene (TCE)	678	6.5E+06	1.9E+06	1.0E-09	3.6E-04	3.4E+04	1.5E+05	2.0E-08	4.6E-03
NP-6	11/16/2017	86	80	75-35-4	1,1-Dichloroethene	163	--	7.7E+07	--	2.1E-06	--	6.1E+06	--	2.7E-05
NP-6	11/16/2017	86	80	76-13-1	Freon 113	5	--	7.3E+10	--	6.8E-11	--	5.9E+09	--	8.5E-10
NP-6	11/16/2017	86	80	127-18-4	Tetrachloroethene (PCE)	5220	8.4E+06	6.4E+07	6.2E-09	8.2E-05	6.5E+04	5.1E+06	8.1E-08	1.0E-03
NP-6	11/16/2017	86	80	79-01-6	Trichloroethene (TCE)	173	9.3E+06	2.7E+06	1.9E-10	6.3E-05	5.0E+04	2.2E+05	3.5E-09	8.0E-04
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	19.3	--	5.2E+08	--	3.7E-08	--	4.1E+07	--	4.7E-07
NP-7	11/16/2017	17	15	75-69-4	Freon 11	7	--	6.2E+08	--	1.1E-08	--	4.9E+07	--	1.4E-07
NP-7	11/16/2017	17	15	76-13-1	Freon 113	53.3	--	2.7E+10	--	2.0E-09	--	2.1E+09	--	2.5E-08
NP-7	11/16/2017	17	15	75-71-8	Freon 12	624	--	4.5E+07	--	1.4E-05	--	3.5E+06	--	1.8E-04
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5450	3.1E+06	2.3E+07	1.8E-08	2.3E-04	2.3E+04	1.9E+06	2.3E-07	2.9E-03
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	28.4	3.4E+06	9.8E+05	8.5E-11	2.9E-05	1.8E+04	7.8E+04	1.6E-09	3.6E-04
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	20	--	5.2E+08	--	3.8E-08	--	4.1E+07	--	4.8E-07
NP-7	11/16/2017	17	15	75-69-4	Freon 11	8	--	6.2E+08	--	1.3E-08	--	4.9E+07	--	1.6E-07
NP-7	11/16/2017	17	15	76-13-1	Freon 113	55.2	--	2.7E+10	--	2.0E-09	--	2.1E+09	--	2.6E-08

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							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-7	11/16/2017	17	15	75-71-8	Freon 12	625	--	4.5E+07	--	1.4E-05	--	3.5E+06	--	1.8E-04
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5920	3.1E+06	2.3E+07	1.9E-08	2.5E-04	2.3E+04	1.9E+06	2.5E-07	3.2E-03
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	20.4	3.4E+06	9.8E+05	6.1E-11	2.1E-05	1.8E+04	7.8E+04	1.1E-09	2.6E-04
NP-7	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	14.3	--	7.4E+08	--	1.9E-08	--	5.8E+07	--	2.4E-07
NP-7	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	134	--	3.9E+07	--	3.5E-06	--	3.1E+06	--	4.4E-05
NP-7	11/16/2017	35	30	124-48-1	Chlorodibromomethane	4	1.6E+06	9.5E+07	2.5E-11	4.2E-08	1.2E+04	7.6E+06	3.3E-10	5.3E-07
NP-7	11/16/2017	35	30	67-66-3	Chloroform	18	7.5E+05	6.0E+07	2.4E-10	3.0E-07	5.7E+03	4.8E+06	3.1E-09	3.8E-06
NP-7	11/16/2017	35	30	75-27-4	Dichlorobromomethane	4	6.3E+05	6.6E+07	6.4E-11	6.1E-08	4.7E+03	5.2E+06	8.4E-10	7.7E-07
NP-7	11/16/2017	35	30	75-69-4	Freon 11	18.3	--	8.8E+08	--	2.1E-08	--	7.0E+07	--	2.6E-07
NP-7	11/16/2017	35	30	76-13-1	Freon 113	159	--	3.8E+10	--	4.2E-09	--	3.0E+09	--	5.3E-08
NP-7	11/16/2017	35	30	75-71-8	Freon 12	1830	--	6.3E+07	--	2.9E-05	--	5.0E+06	--	3.7E-04
NP-7	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	7920	4.3E+06	3.3E+07	1.8E-08	2.4E-04	3.3E+04	2.6E+06	2.4E-07	3.0E-03
NP-7	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	1160	4.7E+06	1.4E+06	2.4E-09	8.4E-04	2.5E+04	1.1E+05	4.6E-08	1.1E-02
NP-7	11/16/2017	53	50	71-55-6	1,1,1-Trichloroethane	20.4	--	1.0E+09	--	2.0E-08	--	8.0E+07	--	2.5E-07
NP-7	11/16/2017	53	50	75-34-3	1,1-Dichloroethene	9.3	1.4E+07	6.4E+08	6.7E-12	1.5E-08	1.0E+05	4.9E+07	9.0E-11	1.9E-07
NP-7	11/16/2017	53	50	75-35-4	1,1-Dichloroethene	991	--	5.4E+07	--	1.8E-05	--	4.3E+06	--	2.3E-04
NP-7	11/16/2017	53	50	56-23-5	Carbon Tetrachloride	13.8	7.7E+05	4.6E+07	1.8E-10	3.0E-07	6.1E+03	3.8E+06	2.3E-09	3.6E-06
NP-7	11/16/2017	53	50	67-66-3	Chloroform	47.1	1.0E+06	8.4E+07	4.5E-10	5.6E-07	8.1E+03	6.8E+06	5.8E-09	6.9E-06
NP-7	11/16/2017	53	50	75-69-4	Freon 11	7	--	1.2E+09	--	5.7E-09	--	9.6E+07	--	7.3E-08
NP-7	11/16/2017	53	50	76-13-1	Freon 113	117	--	5.3E+10	--	2.2E-09	--	4.2E+09	--	2.8E-08
NP-7	11/16/2017	53	50	75-71-8	Freon 12	1040	--	8.8E+07	--	1.2E-05	--	7.0E+06	--	1.5E-04
NP-7	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	8410	6.1E+06	4.6E+07	1.4E-08	1.8E-04	4.6E+04	3.7E+06	1.8E-07	2.3E-03
NP-7	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3080	6.5E+06	1.9E+06	4.7E-09	1.6E-03	3.4E+04	1.5E+05	9.0E-08	2.1E-02
NP-7	11/16/2017	53	50	75-01-4	Vinyl Chloride	5	2.2E+05	6.2E+07	2.3E-10	8.1E-08	4.5E+02	5.0E+06	1.1E-08	1.0E-06
NP-8	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	225	--	5.2E+08	--	4.3E-07	--	4.1E+07	--	5.4E-06
NP-8	11/16/2017	17	15	56-23-5	Carbon Tetrachloride	30	3.9E+05	2.4E+07	7.6E-10	1.3E-06	3.0E+03	1.9E+06	1.0E-08	1.6E-05
NP-8	11/16/2017	17	15	75-71-8	Freon 12	33.2	--	4.5E+07	--	7.4E-07	--	3.5E+06	--	9.4E-06
NP-8	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	2290	3.1E+06	2.3E+07	7.5E-09	9.8E-05	2.3E+04	1.9E+06	9.8E-08	1.2E-03
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	250	--	7.4E+08	--	3.4E-07	--	5.8E+07	--	4.3E-06
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	109	--	3.9E+07	--	2.8E-06	--	3.1E+06	--	3.5E-05
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	33.8	5.5E+05	3.3E+07	6.1E-10	1.0E-06	4.2E+03	2.6E+06	8.1E-09	1.3E-05
NP-8	11/16/2017	37	30	75-71-8	Freon 12	184	--	6.3E+07	--	2.9E-06	--	5.0E+06	--	3.7E-05

Human Health Risk Assessment Addendum
 777 North Front Street
 Burbank, California
 December 2017

Attachment A Table A-2
 Cumulative Risk Evaluation
 Soil Vapor to Indoor Air Pathway
 Slab-on-Grade Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	3440	4.3E+06	3.3E+07	8.0E-09	1.0E-04	3.3E+04	2.6E+06	1.0E-07	1.3E-03
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	18	4.7E+06	1.4E+06	3.8E-11	1.3E-05	2.5E+04	1.1E+05	7.1E-10	1.6E-04
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	242	--	7.4E+08	--	3.3E-07	--	5.8E+07	--	4.1E-06
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	103	--	3.9E+07	--	2.7E-06	--	3.1E+06	--	3.3E-05
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	31.8	5.5E+05	3.3E+07	5.8E-10	9.6E-07	4.2E+03	2.6E+06	7.6E-09	1.2E-05
NP-8	11/16/2017	37	30	75-71-8	Freon 12	181	--	6.3E+07	--	2.9E-06	--	5.0E+06	--	3.6E-05
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	2900	4.3E+06	3.3E+07	6.7E-09	8.8E-05	3.3E+04	2.6E+06	8.8E-08	1.1E-03
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	17	4.7E+06	1.4E+06	3.6E-11	1.2E-05	2.5E+04	1.1E+05	6.7E-10	1.5E-04
NP-8	11/16/2017	57	50	71-55-6	1,1,1-Trichloroethane	197	--	1.0E+09	--	1.9E-07	--	8.0E+07	--	2.5E-06
NP-8	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	1210	--	5.4E+07	--	2.2E-05	--	4.3E+06	--	2.8E-04
NP-8	11/16/2017	57	50	56-23-5	Carbon Tetrachloride	8.6	7.7E+05	4.6E+07	1.1E-10	1.9E-07	6.1E+03	3.8E+06	1.4E-09	2.3E-06
NP-8	11/16/2017	57	50	67-66-3	Chloroform	7	1.0E+06	8.4E+07	6.7E-11	8.3E-08	8.1E+03	6.8E+06	8.6E-10	1.0E-06
NP-8	11/16/2017	57	50	76-13-1	Freon 113	105	--	5.3E+10	--	2.0E-09	--	4.2E+09	--	2.5E-08
NP-8	11/16/2017	57	50	75-71-8	Freon 12	363	--	8.8E+07	--	4.1E-06	--	7.0E+06	--	5.2E-05
NP-8	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	3370	6.1E+06	4.6E+07	5.5E-09	7.3E-05	4.6E+04	3.7E+06	7.3E-08	9.2E-04
NP-8	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	429	6.5E+06	1.9E+06	6.6E-10	2.3E-04	3.4E+04	1.5E+05	1.3E-08	2.9E-03
NP-8	11/16/2017	80	80	71-55-6	1,1,1-Trichloroethane	196	--	1.5E+09	--	1.3E-07	--	1.1E+08	--	1.7E-06
NP-8	11/16/2017	80	80	75-34-3	1,1-Dichloroethane	30.2	2.0E+07	9.0E+08	1.5E-11	3.4E-08	1.5E+05	7.0E+07	2.1E-10	4.3E-07
NP-8	11/16/2017	80	80	75-35-4	1,1-Dichloroethene	3840	--	7.7E+07	--	5.0E-05	--	6.1E+06	--	6.3E-04
NP-8	11/16/2017	80	80	56-23-5	Carbon Tetrachloride	27.2	1.1E+06	6.5E+07	2.5E-10	4.2E-07	8.4E+03	5.2E+06	3.3E-09	5.2E-06
NP-8	11/16/2017	80	80	67-66-3	Chloroform	28.2	1.5E+06	1.2E+08	1.9E-10	2.4E-07	1.1E+04	9.3E+06	2.5E-09	3.0E-06
NP-8	11/16/2017	80	80	156-59-2	cis-1,2-Dichloroethene	6	--	8.5E+06	--	7.0E-07	--	7.0E+05	--	8.6E-06
NP-8	11/16/2017	80	80	76-13-1	Freon 113	186	--	7.3E+10	--	2.5E-09	--	5.9E+09	--	3.2E-08
NP-8	11/16/2017	80	80	75-71-8	Freon 12	450	--	1.3E+08	--	3.6E-06	--	9.5E+06	--	4.7E-05
NP-8	11/16/2017	80	80	127-18-4	Tetrachloroethene (PCE)	5980	8.4E+06	6.4E+07	7.1E-09	9.4E-05	6.5E+04	5.1E+06	9.2E-08	1.2E-03
NP-8	11/16/2017	80	80	79-01-6	Trichloroethene (TCE)	2310	9.3E+06	2.7E+06	2.5E-09	8.4E-04	5.0E+04	2.2E+05	4.6E-08	1.1E-02

Notes:

-- " not applicable

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

" ft bgs " feet below ground surface

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for future residents, and a target noncancer hazard = 1 for both receptors

Human Health Risk Assessment Addendum
 777 North Front Street
 Burbank, California
 December 2017

Attachment A: Table A-3
 Cumulative Risk Evaluation
 Soil Vapor to Indoor Air Pathway
 Second Floor Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1100	--	1.5E+10	--	7.4E-08	--	3.5E+09	--	3.1E-07
NP-1	11/16/2017	19	20	75-71-8	Freon 12	78.8	--	1.3E+09	--	6.2E-08	--	3.0E+08	--	2.6E-07
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	26500	8.7E+07	6.6E+08	3.0E-09	4.0E-05	2.0E+06	1.6E+08	1.3E-08	1.7E-04
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	38	9.5E+07	2.8E+07	4.0E-12	1.4E-06	1.5E+06	6.7E+06	2.5E-11	5.7E-06
NP-1	11/16/2017	19	20	71-55-6	1,1,1-Trichloroethane	1090	--	1.5E+10	--	7.4E-08	--	3.5E+09	--	3.1E-07
NP-1	11/16/2017	19	20	75-71-8	Freon 12	89.6	--	1.3E+09	--	7.1E-08	--	3.0E+08	--	3.0E-07
NP-1	11/16/2017	19	20	127-18-4	Tetrachloroethene (PCE)	20000	8.7E+07	6.6E+08	2.3E-09	3.0E-05	2.0E+06	1.6E+08	1.0E-08	1.3E-04
NP-1	11/16/2017	19	20	79-01-6	Trichloroethene (TCE)	81.8	9.5E+07	2.8E+07	8.6E-12	2.9E-06	1.5E+06	6.7E+06	5.4E-11	1.2E-05
NP-1	11/16/2017	49	50	71-55-6	1,1,1-Trichloroethane	1010	--	2.6E+10	--	4.0E-08	--	6.1E+09	--	1.7E-07
NP-1	11/16/2017	49	50	75-35-4	1,1-Dichloroethene	192	--	1.3E+09	--	1.4E-07	--	3.2E+08	--	6.0E-07
NP-1	11/16/2017	49	50	67-66-3	Chloroform	10.3	2.6E+07	2.1E+09	4.0E-12	4.9E-09	6.0E+05	5.0E+08	1.7E-11	2.1E-08
NP-1	11/16/2017	49	50	75-69-4	Freon 11	5	--	3.0E+10	--	1.6E-10	--	7.2E+09	--	6.9E-10
NP-1	11/16/2017	49	50	76-13-1	Freon 113	75.8	--	1.3E+12	--	5.7E-11	--	3.1E+11	--	2.4E-10
NP-1	11/16/2017	49	50	75-71-8	Freon 12	1720	--	2.2E+09	--	7.9E-07	--	5.2E+08	--	3.3E-06
NP-1	11/16/2017	49	50	127-18-4	Tetrachloroethene (PCE)	21800	1.5E+08	1.1E+09	1.5E-09	1.9E-05	3.4E+06	2.7E+08	6.3E-09	8.0E-05
NP-1	11/16/2017	49	50	79-01-6	Trichloroethene (TCE)	54.2	1.6E+08	4.8E+07	3.3E-12	1.1E-06	2.6E+06	1.1E+07	2.1E-11	4.7E-06
NP-1	11/16/2017	70	50	71-55-6	1,1,1-Trichloroethane	455	--	2.6E+10	--	1.8E-08	--	6.1E+09	--	7.5E-08
NP-1	11/16/2017	70	50	75-35-4	1,1-Dichloroethene	443	--	1.3E+09	--	3.3E-07	--	3.2E+08	--	1.4E-06
NP-1	11/16/2017	70	50	67-66-3	Chloroform	20.8	2.6E+07	2.1E+09	8.0E-12	9.9E-09	6.0E+05	5.0E+08	3.5E-11	4.2E-08
NP-1	11/16/2017	70	50	75-27-4	Dichlorobromomethane	6	2.2E+07	2.3E+09	2.7E-12	2.6E-09	5.0E+05	5.5E+08	1.2E-11	1.1E-08
NP-1	11/16/2017	70	50	76-13-1	Freon 113	97.6	--	1.3E+12	--	7.4E-11	--	3.1E+11	--	3.1E-10
NP-1	11/16/2017	70	50	75-71-8	Freon 12	2530	--	2.2E+09	--	1.2E-06	--	5.2E+08	--	4.9E-06
NP-1	11/16/2017	70	50	127-18-4	Tetrachloroethene (PCE)	13200	1.5E+08	1.1E+09	8.8E-10	1.2E-05	3.4E+06	2.7E+08	3.8E-09	4.8E-05
NP-1	11/16/2017	70	50	79-01-6	Trichloroethene (TCE)	86	1.6E+08	4.8E+07	5.2E-12	1.8E-06	2.6E+06	1.1E+07	3.3E-11	7.5E-06
NP-1	11/16/2017	85	80	630-20-6	1,1,1,2-Tetrachloroethane	11.1	1.8E+08	5.8E+09	6.1E-13	1.9E-09	4.2E+06	1.4E+09	2.7E-12	8.1E-09
NP-1	11/16/2017	85	80	71-55-6	1,1,1-Trichloroethane	157	--	3.6E+10	--	4.3E-09	--	8.6E+09	--	1.8E-08
NP-1	11/16/2017	85	80	75-34-3	1,1-Dichloroethene	260	4.9E+08	2.2E+10	5.3E-12	1.2E-08	1.1E+07	5.3E+09	2.3E-11	4.9E-08
NP-1	11/16/2017	85	80	75-35-4	1,1-Dichloroethene	1090	--	1.9E+09	--	5.7E-07	--	4.5E+08	--	2.4E-06
NP-1	11/16/2017	85	80	67-66-3	Chloroform	21.8	3.7E+07	3.0E+09	5.9E-12	7.3E-09	8.5E+05	7.1E+08	2.6E-11	3.1E-08
NP-1	11/16/2017	85	80	75-27-4	Dichlorobromomethane	5	3.1E+07	3.3E+09	1.6E-12	1.5E-09	7.1E+05	7.8E+08	7.0E-12	6.4E-09
NP-1	11/16/2017	85	80	76-13-1	Freon 113	34	--	1.9E+12	--	1.8E-11	--	4.5E+11	--	7.6E-11
NP-1	11/16/2017	85	80	75-71-8	Freon 12	2900	--	3.1E+09	--	9.4E-07	--	7.4E+08	--	3.9E-06

Human Health Risk Assessment Addendum
 777 North Front Street
 Burbank, California
 December 2017

Attachment A: Table A-3
 Cumulative Risk Evaluation
 Soil Vapor to Indoor Air Pathway
 Second Floor Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-1	11/16/2017	85	80	127-18-4	Tetrachloroethene (PCE)	46200	2.1E+08	1.6E+09	2.2E-09	2.8E-05	4.9E+06	3.9E+08	9.5E-09	1.2E-04
NP-1	11/16/2017	85	80	79-01-6	Trichloroethene (TCE)	508	2.3E+08	6.8E+07	2.2E-11	7.4E-06	3.7E+06	1.6E+07	1.4E-10	3.1E-05
NP-2	11/16/2017	15	15	630-20-6	1,1,1,2-Tetrachloroethane	145	6.5E+07	2.0E+09	2.2E-11	7.1E-08	1.5E+06	4.9E+08	9.8E-11	3.0E-07
NP-2	11/16/2017	15	15	67-66-3	Chloroform	28.7	1.3E+07	1.1E+09	2.2E-11	2.7E-08	3.0E+05	2.5E+08	9.4E-11	1.1E-07
NP-2	11/16/2017	15	15	156-59-2	cis-1,2-Dichloroethene	30.9	--	7.6E+07	--	4.1E-07	--	1.8E+07	--	1.7E-06
NP-2	11/16/2017	15	15	76-13-1	Freon 113	8	--	6.7E+11	--	1.2E-11	--	1.6E+11	--	5.0E-11
NP-2	11/16/2017	15	15	75-71-8	Freon 12	357	--	1.1E+09	--	3.2E-07	--	2.7E+08	--	1.3E-06
NP-2	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	1270000	7.7E+07	5.8E+08	1.7E-07	2.2E-03	1.8E+06	1.4E+08	7.2E-07	9.1E-03
NP-2	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	3350	8.4E+07	2.5E+07	4.0E-10	1.4E-04	1.3E+06	5.9E+06	2.5E-09	5.7E-04
NP-2	11/16/2017	37	30	630-20-6	1,1,1,2-Tetrachloroethane	147	9.2E+07	2.9E+09	1.6E-11	5.1E-08	2.1E+06	6.9E+08	7.0E-11	2.1E-07
NP-2	11/16/2017	37	30	67-66-3	Chloroform	16.2	1.9E+07	1.5E+09	8.6E-12	1.1E-08	4.3E+05	3.6E+08	3.8E-11	4.5E-08
NP-2	11/16/2017	37	30	76-13-1	Freon 113	41	--	9.5E+11	--	4.3E-11	--	2.3E+11	--	1.8E-10
NP-2	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	1450000	1.1E+08	8.2E+08	1.3E-07	1.8E-03	2.5E+06	2.0E+08	5.9E-07	7.4E-03
NP-2	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	2600	1.2E+08	3.5E+07	2.2E-10	7.5E-05	1.9E+06	8.3E+06	1.4E-09	3.1E-04
NP-2	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	514	1.3E+08	4.1E+09	4.0E-11	1.3E-07	2.9E+06	9.6E+08	1.8E-10	5.3E-07
NP-2	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	44.8	--	1.3E+09	--	3.3E-08	--	3.2E+08	--	1.4E-07
NP-2	11/16/2017	51	50	67-66-3	Chloroform	92.6	2.6E+07	2.1E+09	3.6E-11	4.4E-08	6.0E+05	5.0E+08	1.6E-10	1.9E-07
NP-2	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	2.2E+07	2.3E+09	1.8E-12	1.7E-09	5.0E+05	5.5E+08	8.0E-12	7.3E-09
NP-2	11/16/2017	51	50	75-69-4	Freon 11	5	--	3.0E+10	--	1.6E-10	--	7.2E+09	--	6.9E-10
NP-2	11/16/2017	51	50	76-13-1	Freon 113	141	--	1.3E+12	--	1.1E-10	--	3.1E+11	--	4.5E-10
NP-2	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	3150000	1.5E+08	1.1E+09	2.1E-07	2.8E-03	3.4E+06	2.7E+08	9.2E-07	1.2E-02
NP-2	11/16/2017	51	50	108-88-3	Toluene	9.5	--	6.4E+09	--	1.5E-09	--	1.5E+09	--	6.3E-09
NP-2	11/16/2017	51	50	156-60-5	trans-1,2-Dichloroethene	8.2	--	1.5E+09	--	5.4E-09	--	3.6E+08	--	2.3E-08
NP-2	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	3990	1.6E+08	4.8E+07	2.4E-10	8.3E-05	2.6E+06	1.1E+07	1.5E-09	3.5E-04
NP-2	11/16/2017	81	80	630-20-6	1,1,1,2-Tetrachloroethane	131	1.8E+08	5.8E+09	7.2E-12	2.3E-08	4.2E+06	1.4E+09	3.1E-11	9.5E-08
NP-2	11/16/2017	81	80	75-35-4	1,1-Dichloroethene	129	--	1.9E+09	--	6.8E-08	--	4.5E+08	--	2.8E-07
NP-2	11/16/2017	81	80	67-66-3	Chloroform	109	3.7E+07	3.0E+09	2.9E-11	3.7E-08	8.5E+05	7.1E+08	1.3E-10	1.5E-07
NP-2	11/16/2017	81	80	76-13-1	Freon 113	108	--	1.9E+12	--	5.8E-11	--	4.5E+11	--	2.4E-10
NP-2	11/16/2017	81	80	127-18-4	Tetrachloroethene (PCE)	1570000	2.1E+08	1.6E+09	7.4E-08	9.7E-04	4.9E+06	3.9E+08	3.2E-07	4.1E-03
NP-2	11/16/2017	81	80	79-01-6	Trichloroethene (TCE)	3380	2.3E+08	6.8E+07	1.4E-10	5.0E-05	3.7E+06	1.6E+07	9.1E-10	2.1E-04
NP-3	11/16/2017	13	15	630-20-6	1,1,1,2-Tetrachloroethane	502	6.5E+07	2.0E+09	7.8E-11	2.5E-07	1.5E+06	4.9E+08	3.4E-10	1.0E-06
NP-3	11/16/2017	13	15	67-66-3	Chloroform	82.8	1.3E+07	1.1E+09	6.2E-11	7.7E-08	3.0E+05	2.5E+08	2.7E-10	3.3E-07

Human Health Risk Assessment Addendum
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Attachment A: Table A-3
 Cumulative Risk Evaluation
 Soil Vapor to Indoor Air Pathway
 Second Floor Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-3	11/16/2017	13	15	76-13-1	Freon 113	17	--	6.7E+11	--	2.5E-11	--	1.6E+11	--	1.1E-10
NP-3	11/16/2017	13	15	75-71-8	Freon 12	208	--	1.1E+09	--	1.9E-07	--	2.7E+08	--	7.8E-07
NP-3	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	5120000	7.7E+07	5.8E+08	6.7E-07	8.8E-03	1.8E+06	1.4E+08	2.9E-06	3.7E-02
NP-3	11/16/2017	13	15	156-60-5	trans-1,2-Dichloroethene	9.6	--	7.7E+08	--	1.2E-08	--	1.8E+08	--	5.2E-08
NP-3	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	5120	8.4E+07	2.5E+07	6.1E-10	2.1E-04	1.3E+06	5.9E+06	3.8E-09	8.7E-04
NP-3	11/16/2017	33	30	630-20-6	1,1,1,2-Tetrachloroethane	1240	9.2E+07	2.9E+09	1.4E-10	4.3E-07	2.1E+06	6.9E+08	5.9E-10	1.8E-06
NP-3	11/16/2017	33	30	71-55-6	1,1,1-Trichloroethane	8	--	1.8E+10	--	4.4E-10	--	4.4E+09	--	1.8E-09
NP-3	11/16/2017	33	30	75-35-4	1,1-Dichloroethene	13.6	--	9.7E+08	--	1.4E-08	--	2.3E+08	--	5.9E-08
NP-3	11/16/2017	33	30	67-66-3	Chloroform	97.8	1.9E+07	1.5E+09	5.2E-11	6.5E-08	4.3E+05	3.6E+08	2.3E-10	2.7E-07
NP-3	11/16/2017	33	30	156-59-2	cis-1,2-Dichloroethene	19.6	--	1.1E+08	--	1.8E-07	--	2.6E+07	--	7.7E-07
NP-3	11/16/2017	33	30	76-13-1	Freon 113	37	--	9.5E+11	--	3.9E-11	--	2.3E+11	--	1.6E-10
NP-3	11/16/2017	33	30	75-71-8	Freon 12	471	--	1.6E+09	--	3.0E-07	--	3.7E+08	--	1.3E-06
NP-3	11/16/2017	33	30	127-18-4	Tetrachloroethene (PCE)	8030000	1.1E+08	8.2E+08	7.4E-07	9.7E-03	2.5E+06	2.0E+08	3.2E-06	4.1E-02
NP-3	11/16/2017	33	30	108-88-3	Toluene	20.2	--	4.6E+09	--	4.4E-09	--	1.1E+09	--	1.8E-08
NP-3	11/16/2017	33	30	156-60-5	trans-1,2-Dichloroethene	10.2	--	1.1E+09	--	9.4E-09	--	2.6E+08	--	3.9E-08
NP-3	11/16/2017	33	30	79-01-6	Trichloroethene (TCE)	4790	1.2E+08	3.5E+07	4.0E-10	1.4E-04	1.9E+06	8.3E+06	2.5E-09	5.8E-04
NP-3	11/16/2017	53	50	630-20-6	1,1,1,2-Tetrachloroethane	587	1.3E+08	4.1E+09	4.6E-11	1.4E-07	2.9E+06	9.6E+08	2.0E-10	6.1E-07
NP-3	11/16/2017	53	50	67-66-3	Chloroform	181	2.6E+07	2.1E+09	6.9E-11	8.6E-08	6.0E+05	5.0E+08	3.0E-10	3.6E-07
NP-3	11/16/2017	53	50	76-13-1	Freon 113	37	--	1.3E+12	--	2.8E-11	--	3.1E+11	--	1.2E-10
NP-3	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	3480000	1.5E+08	1.1E+09	2.3E-07	3.0E-03	3.4E+06	2.7E+08	1.0E-06	1.3E-02
NP-3	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3210	1.6E+08	4.8E+07	2.0E-10	6.7E-05	2.6E+06	1.1E+07	1.2E-09	2.8E-04
NP-4	11/16/2017	13	15	71-55-6	1,1,1-Trichloroethane	15	--	1.3E+10	--	1.2E-09	--	3.1E+09	--	4.8E-09
NP-4	11/16/2017	13	15	76-13-1	Freon 113	32	--	6.7E+11	--	4.7E-11	--	1.6E+11	--	2.0E-10
NP-4	11/16/2017	13	15	75-71-8	Freon 12	485	--	1.1E+09	--	4.3E-07	--	2.7E+08	--	1.8E-06
NP-4	11/16/2017	13	15	127-18-4	Tetrachloroethene (PCE)	1890000	7.7E+07	5.8E+08	2.5E-07	3.2E-03	1.8E+06	1.4E+08	1.1E-06	1.4E-02
NP-4	11/16/2017	13	15	79-01-6	Trichloroethene (TCE)	2340	8.4E+07	2.5E+07	2.8E-10	9.5E-05	1.3E+06	5.9E+06	1.7E-09	4.0E-04
NP-4	11/16/2017	35	30	630-20-6	1,1,1,2-Tetrachloroethane	5530	9.2E+07	2.9E+09	6.0E-10	1.9E-06	2.1E+06	6.9E+08	2.6E-09	8.0E-06
NP-4	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	25.8	--	9.7E+08	--	2.7E-08	--	2.3E+08	--	1.1E-07
NP-4	11/16/2017	35	30	76-13-1	Freon 113	84.4	--	9.5E+11	--	8.9E-11	--	2.3E+11	--	3.7E-10
NP-4	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	1790000	1.1E+08	8.2E+08	1.7E-07	2.2E-03	2.5E+06	2.0E+08	7.2E-07	9.1E-03
NP-4	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	3430	1.2E+08	3.5E+07	2.9E-10	9.9E-05	1.9E+06	8.3E+06	1.8E-09	4.2E-04
NP-4	11/16/2017	51	50	630-20-6	1,1,1,2-Tetrachloroethane	124	1.3E+08	4.1E+09	9.7E-12	3.1E-08	2.9E+06	9.6E+08	4.2E-11	1.3E-07

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Attachment A: Table A-3
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 Soil Vapor to Indoor Air Pathway
 Second Floor Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-4	11/16/2017	51	50	75-35-4	1,1-Dichloroethene	22.1	--	1.3E+09	--	1.6E-08	--	3.2E+08	--	6.9E-08
NP-4	11/16/2017	51	50	67-66-3	Chloroform	336	2.6E+07	2.1E+09	1.3E-10	1.6E-07	6.0E+05	5.0E+08	5.6E-10	6.7E-07
NP-4	11/16/2017	51	50	75-27-4	Dichlorobromomethane	4	2.2E+07	2.3E+09	1.8E-12	1.7E-09	5.0E+05	5.5E+08	8.0E-12	7.3E-09
NP-4	11/16/2017	51	50	76-13-1	Freon 113	45.9	--	1.3E+12	--	3.5E-11	--	3.1E+11	--	1.5E-10
NP-4	11/16/2017	51	50	75-71-8	Freon 12	762	--	2.2E+09	--	3.5E-07	--	5.2E+08	--	1.5E-06
NP-4	11/16/2017	51	50	127-18-4	Tetrachloroethene (PCE)	684000	1.5E+08	1.1E+09	4.6E-08	6.0E-04	3.4E+06	2.7E+08	2.0E-07	2.5E-03
NP-4	11/16/2017	51	50	108-88-3	Toluene	6	--	6.4E+09	--	9.4E-10	--	1.5E+09	--	4.0E-09
NP-4	11/16/2017	51	50	79-01-6	Trichloroethene (TCE)	2550	1.6E+08	4.8E+07	1.6E-10	5.3E-05	2.6E+06	1.1E+07	9.7E-10	2.2E-04
NP-4	11/16/2017	83	80	630-20-6	1,1,1,2-Tetrachloroethane	31.4	1.8E+08	5.8E+09	1.7E-12	5.4E-09	4.2E+06	1.4E+09	7.5E-12	2.3E-08
NP-4	11/16/2017	83	80	75-35-4	1,1-Dichloroethene	60.8	--	1.9E+09	--	3.2E-08	--	4.5E+08	--	1.3E-07
NP-4	11/16/2017	83	80	71-43-2	Benzene	4	2.5E+07	7.9E+07	1.6E-12	5.1E-08	5.8E+05	1.9E+07	6.9E-12	2.1E-07
NP-4	11/16/2017	83	80	67-66-3	Chloroform	1040	3.7E+07	3.0E+09	2.8E-10	3.5E-07	8.5E+05	7.1E+08	1.2E-09	1.5E-06
NP-4	11/16/2017	83	80	76-13-1	Freon 113	70.8	--	1.9E+12	--	3.8E-11	--	4.5E+11	--	1.6E-10
NP-4	11/16/2017	83	80	127-18-4	Tetrachloroethene (PCE)	781000	2.1E+08	1.6E+09	3.7E-08	4.8E-04	4.9E+06	3.9E+08	1.6E-07	2.0E-03
NP-4	11/16/2017	83	80	79-01-6	Trichloroethene (TCE)	4950	2.3E+08	6.8E+07	2.1E-10	7.2E-05	3.7E+06	1.6E+07	1.3E-09	3.0E-04
NP-5	11/16/2017	15	15	67-66-3	Chloroform	14.4	1.3E+07	1.1E+09	1.1E-11	1.3E-08	3.0E+05	2.5E+08	4.7E-11	5.7E-08
NP-5	11/16/2017	15	15	76-13-1	Freon 113	41.8	--	6.7E+11	--	6.2E-11	--	1.6E+11	--	2.6E-10
NP-5	11/16/2017	15	15	75-71-8	Freon 12	303	--	1.1E+09	--	2.7E-07	--	2.7E+08	--	1.1E-06
NP-5	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	6610	7.7E+07	5.8E+08	8.6E-10	1.1E-05	1.8E+06	1.4E+08	3.8E-09	4.7E-05
NP-5	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	7320	8.4E+07	2.5E+07	8.7E-10	3.0E-04	1.3E+06	5.9E+06	5.5E-09	1.3E-03
NP-5	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	7	--	1.8E+10	--	3.8E-10	--	4.4E+09	--	1.6E-09
NP-5	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	102	--	9.7E+08	--	1.1E-07	--	2.3E+08	--	4.4E-07
NP-5	11/16/2017	35	30	67-66-3	Chloroform	120	1.9E+07	1.5E+09	6.4E-11	8.0E-08	4.3E+05	3.6E+08	2.8E-10	3.3E-07
NP-5	11/16/2017	35	30	76-13-1	Freon 113	229	--	9.5E+11	--	2.4E-10	--	2.3E+11	--	1.0E-09
NP-5	11/16/2017	35	30	75-71-8	Freon 12	1940	--	1.6E+09	--	1.2E-06	--	3.7E+08	--	5.2E-06
NP-5	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	20800	1.1E+08	8.2E+08	1.9E-09	2.5E-05	2.5E+06	2.0E+08	8.4E-09	1.1E-04
NP-5	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	18900	1.2E+08	3.5E+07	1.6E-09	5.5E-04	1.9E+06	8.3E+06	1.0E-08	2.3E-03
NP-5	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	205	--	1.3E+09	--	1.5E-07	--	3.2E+08	--	6.4E-07
NP-5	11/16/2017	57	50	71-43-2	Benzene	7	1.8E+07	5.5E+07	3.9E-12	1.3E-07	4.1E+05	1.3E+07	1.7E-11	5.3E-07
NP-5	11/16/2017	57	50	67-66-3	Chloroform	457	2.6E+07	2.1E+09	1.8E-10	2.2E-07	6.0E+05	5.0E+08	7.7E-10	9.2E-07
NP-5	11/16/2017	57	50	76-13-1	Freon 113	116	--	1.3E+12	--	8.8E-11	--	3.1E+11	--	3.7E-10
NP-5	11/16/2017	57	50	75-71-8	Freon 12	1070	--	2.2E+09	--	4.9E-07	--	5.2E+08	--	2.1E-06

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 Soil Vapor to Indoor Air Pathway
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Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-5	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	18000	1.5E+08	1.1E+09	1.2E-09	1.6E-05	3.4E+06	2.7E+08	5.2E-09	6.6E-05
NP-5	11/16/2017	57	50	108-88-3	Toluene	5	--	6.4E+09	--	7.8E-10	--	1.5E+09	--	3.3E-09
NP-5	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	11700	1.6E+08	4.8E+07	7.1E-10	2.4E-04	2.6E+06	1.1E+07	4.5E-09	1.0E-03
NP-6	11/16/2017	15	15	71-55-6	1,1,1-Trichloroethane	22.2	--	1.3E+10	--	1.7E-09	--	3.1E+09	--	7.1E-09
NP-6	11/16/2017	15	15	75-71-8	Freon 12	60.3	--	1.1E+09	--	5.4E-08	--	2.7E+08	--	2.3E-07
NP-6	11/16/2017	15	15	127-18-4	Tetrachloroethene (PCE)	5580	7.7E+07	5.8E+08	7.3E-10	9.5E-06	1.8E+06	1.4E+08	3.2E-09	4.0E-05
NP-6	11/16/2017	15	15	79-01-6	Trichloroethene (TCE)	13.2	8.4E+07	2.5E+07	1.6E-12	5.4E-07	1.3E+06	5.9E+06	9.8E-12	2.3E-06
NP-6	11/16/2017	40	30	75-35-4	1,1-Dichloroethene	462	--	9.7E+08	--	4.8E-07	--	2.3E+08	--	2.0E-06
NP-6	11/16/2017	40	30	76-13-1	Freon 113	21	--	9.5E+11	--	2.2E-11	--	2.3E+11	--	9.3E-11
NP-6	11/16/2017	40	30	127-18-4	Tetrachloroethene (PCE)	5580	1.1E+08	8.2E+08	5.2E-10	6.8E-06	2.5E+06	2.0E+08	2.3E-09	2.8E-05
NP-6	11/16/2017	40	30	79-01-6	Trichloroethene (TCE)	178	1.2E+08	3.5E+07	1.5E-11	5.1E-06	1.9E+06	8.3E+06	9.4E-11	2.2E-05
NP-6	11/16/2017	60	50	71-55-6	1,1,1-Trichloroethane	12.7	--	2.6E+10	--	5.0E-10	--	6.1E+09	--	2.1E-09
NP-6	11/16/2017	60	50	75-35-4	1,1-Dichloroethene	502	--	1.3E+09	--	3.7E-07	--	3.2E+08	--	1.6E-06
NP-6	11/16/2017	60	50	67-66-3	Chloroform	22.4	2.6E+07	2.1E+09	8.6E-12	1.1E-08	6.0E+05	5.0E+08	3.8E-11	4.5E-08
NP-6	11/16/2017	60	50	75-27-4	Dichlorobromomethane	4	2.2E+07	2.3E+09	1.8E-12	1.7E-09	5.0E+05	5.5E+08	8.0E-12	7.3E-09
NP-6	11/16/2017	60	50	76-13-1	Freon 113	33	--	1.3E+12	--	2.5E-11	--	3.1E+11	--	1.1E-10
NP-6	11/16/2017	60	50	75-71-8	Freon 12	329	--	2.2E+09	--	1.5E-07	--	5.2E+08	--	6.3E-07
NP-6	11/16/2017	60	50	127-18-4	Tetrachloroethene (PCE)	4440	1.5E+08	1.1E+09	3.0E-10	3.9E-06	3.4E+06	2.7E+08	1.3E-09	1.6E-05
NP-6	11/16/2017	60	50	79-01-6	Trichloroethene (TCE)	678	1.6E+08	4.8E+07	4.1E-11	1.4E-05	2.6E+06	1.1E+07	2.6E-10	5.9E-05
NP-6	11/16/2017	86	80	75-35-4	1,1-Dichloroethene	163	--	1.9E+09	--	8.6E-08	--	4.5E+08	--	3.6E-07
NP-6	11/16/2017	86	80	76-13-1	Freon 113	5	--	1.9E+12	--	2.7E-12	--	4.5E+11	--	1.1E-11
NP-6	11/16/2017	86	80	127-18-4	Tetrachloroethene (PCE)	5220	2.1E+08	1.6E+09	2.4E-10	3.2E-06	4.9E+06	3.9E+08	1.1E-09	1.3E-05
NP-6	11/16/2017	86	80	79-01-6	Trichloroethene (TCE)	173	2.3E+08	6.8E+07	7.4E-12	2.5E-06	3.7E+06	1.6E+07	4.6E-11	1.1E-05
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	19.3	--	1.3E+10	--	1.5E-09	--	3.1E+09	--	6.2E-09
NP-7	11/16/2017	17	15	75-69-4	Freon 11	7	--	1.6E+10	--	4.5E-10	--	3.7E+09	--	1.9E-09
NP-7	11/16/2017	17	15	76-13-1	Freon 113	53.3	--	6.7E+11	--	7.9E-11	--	1.6E+11	--	3.3E-10
NP-7	11/16/2017	17	15	75-71-8	Freon 12	624	--	1.1E+09	--	5.6E-07	--	2.7E+08	--	2.3E-06
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5450	7.7E+07	5.8E+08	7.1E-10	9.3E-06	1.8E+06	1.4E+08	3.1E-09	3.9E-05
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	28.4	8.4E+07	2.5E+07	3.4E-12	1.2E-06	1.3E+06	5.9E+06	2.1E-11	4.9E-06
NP-7	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	20	--	1.3E+10	--	1.5E-09	--	3.1E+09	--	6.4E-09
NP-7	11/16/2017	17	15	75-69-4	Freon 11	8	--	1.6E+10	--	5.1E-10	--	3.7E+09	--	2.2E-09
NP-7	11/16/2017	17	15	76-13-1	Freon 113	55.2	--	6.7E+11	--	8.2E-11	--	1.6E+11	--	3.4E-10

Human Health Risk Assessment Addendum
 777 North Front Street
 Burbank, California
 December 2017

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 Cumulative Risk Evaluation
 Soil Vapor to Indoor Air Pathway
 Second Floor Scenario

Boring ID	Sample Date	Sample Depth (ft bgs)	RBC Depth Assigned	CAS Number	Analyte	Concentration in Soil Vapor ($\mu\text{g}/\text{m}^3$)	Future Commercial Worker				Future Resident			
							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-7	11/16/2017	17	15	75-71-8	Freon 12	625	--	1.1E+09	--	5.6E-07	--	2.7E+08	--	2.4E-06
NP-7	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	5920	7.7E+07	5.8E+08	7.7E-10	1.0E-05	1.8E+06	1.4E+08	3.4E-09	4.3E-05
NP-7	11/16/2017	17	15	79-01-6	Trichloroethene (TCE)	20.4	8.4E+07	2.5E+07	2.4E-12	8.3E-07	1.3E+06	5.9E+06	1.5E-11	3.5E-06
NP-7	11/16/2017	35	30	71-55-6	1,1,1-Trichloroethane	14.3	--	1.8E+10	--	7.8E-10	--	4.4E+09	--	3.3E-09
NP-7	11/16/2017	35	30	75-35-4	1,1-Dichloroethene	134	--	9.7E+08	--	1.4E-07	--	2.3E+08	--	5.8E-07
NP-7	11/16/2017	35	30	124-48-1	Chlorodibromomethane	4	4.0E+07	2.4E+09	1.0E-12	1.7E-09	9.1E+05	5.7E+08	4.4E-12	7.0E-09
NP-7	11/16/2017	35	30	67-66-3	Chloroform	18	1.9E+07	1.5E+09	9.6E-12	1.2E-08	4.3E+05	3.6E+08	4.2E-11	5.0E-08
NP-7	11/16/2017	35	30	75-27-4	Dichlorobromomethane	4	1.6E+07	1.7E+09	2.6E-12	2.4E-09	3.6E+05	3.9E+08	1.1E-11	1.0E-08
NP-7	11/16/2017	35	30	75-69-4	Freon 11	18.3	--	2.2E+10	--	8.3E-10	--	5.2E+09	--	3.5E-09
NP-7	11/16/2017	35	30	76-13-1	Freon 113	159	--	9.5E+11	--	1.7E-10	--	2.3E+11	--	7.0E-10
NP-7	11/16/2017	35	30	75-71-8	Freon 12	1830	--	1.6E+09	--	1.2E-06	--	3.7E+08	--	4.9E-06
NP-7	11/16/2017	35	30	127-18-4	Tetrachloroethene (PCE)	7920	1.1E+08	8.2E+08	7.3E-10	9.6E-06	2.5E+06	2.0E+08	3.2E-09	4.0E-05
NP-7	11/16/2017	35	30	79-01-6	Trichloroethene (TCE)	1160	1.2E+08	3.5E+07	9.8E-11	3.3E-05	1.9E+06	8.3E+06	6.1E-10	1.4E-04
NP-7	11/16/2017	53	50	71-55-6	1,1,1-Trichloroethane	20.4	--	2.6E+10	--	8.0E-10	--	6.1E+09	--	3.4E-09
NP-7	11/16/2017	53	50	75-34-3	1,1-Dichloroethane	9.3	3.5E+08	1.6E+10	2.7E-13	5.9E-10	7.9E+06	3.8E+09	1.2E-12	2.5E-09
NP-7	11/16/2017	53	50	75-35-4	1,1-Dichloroethene	991	--	1.3E+09	--	7.4E-07	--	3.2E+08	--	3.1E-06
NP-7	11/16/2017	53	50	56-23-5	Carbon Tetrachloride	13.8	1.9E+07	1.2E+09	7.2E-12	1.2E-08	4.4E+05	2.8E+08	3.1E-11	5.0E-08
NP-7	11/16/2017	53	50	67-66-3	Chloroform	47.1	2.6E+07	2.1E+09	1.8E-11	2.2E-08	6.0E+05	5.0E+08	7.9E-11	9.4E-08
NP-7	11/16/2017	53	50	75-69-4	Freon 11	7	--	3.0E+10	--	2.3E-10	--	7.2E+09	--	9.7E-10
NP-7	11/16/2017	53	50	76-13-1	Freon 113	117	--	1.3E+12	--	8.9E-11	--	3.1E+11	--	3.7E-10
NP-7	11/16/2017	53	50	75-71-8	Freon 12	1040	--	2.2E+09	--	4.8E-07	--	5.2E+08	--	2.0E-06
NP-7	11/16/2017	53	50	127-18-4	Tetrachloroethene (PCE)	8410	1.5E+08	1.1E+09	5.6E-10	7.3E-06	3.4E+06	2.7E+08	2.4E-09	3.1E-05
NP-7	11/16/2017	53	50	79-01-6	Trichloroethene (TCE)	3080	1.6E+08	4.8E+07	1.9E-10	6.4E-05	2.6E+06	1.1E+07	1.2E-09	2.7E-04
NP-7	11/16/2017	53	50	75-01-4	Vinyl Chloride	5	5.6E+06	1.6E+09	9.0E-12	3.2E-09	3.3E+04	3.7E+08	1.5E-10	1.4E-08
NP-8	11/16/2017	17	15	71-55-6	1,1,1-Trichloroethane	225	--	1.3E+10	--	1.7E-08	--	3.1E+09	--	7.2E-08
NP-8	11/16/2017	17	15	56-23-5	Carbon Tetrachloride	30	9.9E+06	5.9E+08	3.0E-11	5.1E-08	2.3E+05	1.4E+08	1.3E-10	2.1E-07
NP-8	11/16/2017	17	15	75-71-8	Freon 12	33.2	--	1.1E+09	--	3.0E-08	--	2.7E+08	--	1.2E-07
NP-8	11/16/2017	17	15	127-18-4	Tetrachloroethene (PCE)	2290	7.7E+07	5.8E+08	3.0E-10	3.9E-06	1.8E+06	1.4E+08	1.3E-09	1.6E-05
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	250	--	1.8E+10	--	1.4E-08	--	4.4E+09	--	5.7E-08
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	109	--	9.7E+08	--	1.1E-07	--	2.3E+08	--	4.7E-07
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	33.8	1.4E+07	8.3E+08	2.4E-11	4.1E-08	3.2E+05	2.0E+08	1.1E-10	1.7E-07
NP-8	11/16/2017	37	30	75-71-8	Freon 12	184	--	1.6E+09	--	1.2E-07	--	3.7E+08	--	4.9E-07

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							RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard	RBC _{SV-C} ($\mu\text{g}/\text{m}^3$)	RBC _{SV-NC} ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Noncancer Hazard
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	3440	1.1E+08	8.2E+08	3.2E-10	4.2E-06	2.5E+06	2.0E+08	1.4E-09	1.8E-05
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	18	1.2E+08	3.5E+07	1.5E-12	5.2E-07	1.9E+06	8.3E+06	9.5E-12	2.2E-06
NP-8	11/16/2017	37	30	71-55-6	1,1,1-Trichloroethane	242	--	1.8E+10	--	1.3E-08	--	4.4E+09	--	5.5E-08
NP-8	11/16/2017	37	30	75-35-4	1,1-Dichloroethene	103	--	9.7E+08	--	1.1E-07	--	2.3E+08	--	4.5E-07
NP-8	11/16/2017	37	30	56-23-5	Carbon Tetrachloride	31.8	1.4E+07	8.3E+08	2.3E-11	3.8E-08	3.2E+05	2.0E+08	1.0E-10	1.6E-07
NP-8	11/16/2017	37	30	75-71-8	Freon 12	181	--	1.6E+09	--	1.2E-07	--	3.7E+08	--	4.8E-07
NP-8	11/16/2017	37	30	127-18-4	Tetrachloroethene (PCE)	2900	1.1E+08	8.2E+08	2.7E-10	3.5E-06	2.5E+06	2.0E+08	1.2E-09	1.5E-05
NP-8	11/16/2017	37	30	79-01-6	Trichloroethene (TCE)	17	1.2E+08	3.5E+07	1.4E-12	4.9E-07	1.9E+06	8.3E+06	9.0E-12	2.1E-06
NP-8	11/16/2017	57	50	71-55-6	1,1,1-Trichloroethane	197	--	2.6E+10	--	7.7E-09	--	6.1E+09	--	3.2E-08
NP-8	11/16/2017	57	50	75-35-4	1,1-Dichloroethene	1210	--	1.3E+09	--	9.0E-07	--	3.2E+08	--	3.8E-06
NP-8	11/16/2017	57	50	56-23-5	Carbon Tetrachloride	8.6	1.9E+07	1.2E+09	4.5E-12	7.4E-09	4.4E+05	2.8E+08	1.9E-11	3.1E-08
NP-8	11/16/2017	57	50	67-66-3	Chloroform	7	2.6E+07	2.1E+09	2.7E-12	3.3E-09	6.0E+05	5.0E+08	1.2E-11	1.4E-08
NP-8	11/16/2017	57	50	76-13-1	Freon 113	105	--	1.3E+12	--	8.0E-11	--	3.1E+11	--	3.3E-10
NP-8	11/16/2017	57	50	75-71-8	Freon 12	363	--	2.2E+09	--	1.7E-07	--	5.2E+08	--	7.0E-07
NP-8	11/16/2017	57	50	127-18-4	Tetrachloroethene (PCE)	3370	1.5E+08	1.1E+09	2.2E-10	2.9E-06	3.4E+06	2.7E+08	9.8E-10	1.2E-05
NP-8	11/16/2017	57	50	79-01-6	Trichloroethene (TCE)	429	1.6E+08	4.8E+07	2.6E-11	8.9E-06	2.6E+06	1.1E+07	1.6E-10	3.7E-05
NP-8	11/16/2017	80	80	71-55-6	1,1,1-Trichloroethane	196	--	3.6E+10	--	5.4E-09	--	8.6E+09	--	2.3E-08
NP-8	11/16/2017	80	80	75-34-3	1,1-Dichloroethene	30.2	4.9E+08	2.2E+10	6.2E-13	1.3E-09	1.1E+07	5.3E+09	2.7E-12	5.7E-09
NP-8	11/16/2017	80	80	75-35-4	1,1-Dichloroethene	3840	--	1.9E+09	--	2.0E-06	--	4.5E+08	--	8.5E-06
NP-8	11/16/2017	80	80	56-23-5	Carbon Tetrachloride	27.2	2.7E+07	1.6E+09	9.9E-12	1.7E-08	6.3E+05	3.9E+08	4.3E-11	7.0E-08
NP-8	11/16/2017	80	80	67-66-3	Chloroform	28.2	3.7E+07	3.0E+09	7.6E-12	9.5E-09	8.5E+05	7.1E+08	3.3E-11	4.0E-08
NP-8	11/16/2017	80	80	156-59-2	cis-1,2-Dichloroethene	6	--	2.1E+08	--	2.8E-08	--	5.0E+07	--	1.2E-07
NP-8	11/16/2017	80	80	76-13-1	Freon 113	186	--	1.9E+12	--	9.9E-11	--	4.5E+11	--	4.2E-10
NP-8	11/16/2017	80	80	75-71-8	Freon 12	450	--	3.1E+09	--	1.5E-07	--	7.4E+08	--	6.1E-07
NP-8	11/16/2017	80	80	127-18-4	Tetrachloroethene (PCE)	5980	2.1E+08	1.6E+09	2.8E-10	3.7E-06	4.9E+06	3.9E+08	1.2E-09	1.5E-05
NP-8	11/16/2017	80	80	79-01-6	Trichloroethene (TCE)	2310	2.3E+08	6.8E+07	9.9E-11	3.4E-05	3.7E+06	1.6E+07	6.2E-10	1.4E-04

Notes:

-- " not applicable

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

" ft bgs " feet below ground surface

RBC_{SV-C} - risk-based concentration based on cancer effects; RBC_{SV-NC} based on noncancer effects

RBCs based on target cancer risk = 10^{-5} for workers and 10^{-6} for future residents, and a target noncancer hazard = 1 for both receptors