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TABLE 1
SUMMARY OF SAMPLING AND ANALYSIS PROGRAM
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Depth (feet bgs)	Rationale	EPA 8081A OCPs	EPA 6010B Arsenic and Lead	EPA 6010B/74741A CAM 17 Metals	EPA 8015B TPH	EPA 8270 SIM PAHs	EPA 8290 Dioxin/Furans	EPA 8082A PCBs	Hydrogen Sulfide & Methane*	EPA 8260B VOCs
SOIL											
B1, B2, B3	0' - 0.5'	Historic Agriculture/Stock piles	C		B1	B1	B1	B1	B1		
	2.5' - 3.0'		-					B1			
B1 DUP, B2 DUP, B3 DUP	0' - 0.5'	Duplicate	C DUP		B1 DUP	B1 DUP	B1 DUP		B1 DUP		
	2.5' - 3.0'										
B4, B7, B8, B11	0' - 0.5'	Historic Agriculture	C	B11							
	2.5' - 3.0'		-								
B5, B6, B9, B10	0' - 0.5'	Historic Agriculture/Stock piles/Valve Box	C		B5, B10	B5, B10	B5	B5	B5		
	2.5' - 3.0'		-			B10	B5, B10	B5			
B12, B14, B15, B21	0' - 0.5'	Historic Agriculture	C	B15							
	2.5' - 3.0'		-								
B13, B16, B19, B20	0' - 0.5'	Historic Agriculture/Valve Box	C		B16	B16					
	2.5' - 3.0'		-			B16	B16	B16			
B18, B25, B33, B40	0' - 0.5'	Historic Agriculture	C	B33							
	2.5' - 3.0'		-								
B26, B27, B34, B35	0' - 0.5'	Historic Agriculture	C	B26							
	2.5' - 3.0'		-								
B17, B22, B23, B28	0' - 0.5'	Historic Agriculture	C	B17							
	2.5' - 3.0'		-								
B24, B31, B32, B39	0' - 0.5'	Historic Agriculture	C	B31							
	2.5' - 3.0'		-								
B29, B30, B36, B43	0' - 0.5'	Historic Agriculture	C	B36							
	2.5' - 3.0'		-								
B37, B38, B44, B45	0' - 0.5'	Historic Agriculture	C	B38							
	2.5' - 3.0'		-								
B41, B46, B47, B50	0' - 0.5'	Historic Agriculture	C	B41							
	2.5' - 3.0'		-								
B42, B48, B49	0' - 0.5'	Historic Agriculture	C	B48							
	2.5' - 3.0'		-								
B51	0' - 0.5'	Historic Agriculture/Site Boundary	B51		B51	B51	B51		B51		
	2.5' - 3.0'		-								
SOIL GAS											
SG-1	5'	Oil Well, Groundwater plume, Landfill								D	D
	15'									D	D
SG-2	5'	Oil Well, Groundwater plume, Landfill								D	D
	15'									D	D
SG-3	5'	Oil Well, Groundwater plume, Landfill								D	D
	15'									D	D

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SG-4	5'	Oil Well, Landfill								D	D
	15'									D	D
SG-5	5'	Pipelines, Oil Well								D	D
	15'									D	D
SG-6	5'	Oil Well & Valve Box								D	D
	15'									D	D
SG-7	5'	Pipelines, Oil Well								D	D
	15'									D	D
SG-8	5'	Pipelines, Oil Well								D	D
	15'									D	D
SG-9	5'	Pipelines, Oil Well								D	D
	15'									D	D
SG-10	5'	Pipelines, Oil Well								D	D
	15'									D	D
SG-11	5'	Oil Well, Groundwater plume								D	D
	15'									D	D
	40'									D	D
SG-11 Duplicate	5'	Duplicate								D DUP	D DUP
	15'									D DUP	D DUP
	40'										D DUP
SG-12	5'	Oil Well								D	
	15'									D	
	40'										D
SG-13	5'	Oil Well								D	
	15'									D	
	40'										D
SG-14	5'	Oil Well								D	D
	15'									D	D
	40'										D
SG-15	5'	Oil Well								D	D
	15'									D	D
	40'										D
SG-16	5'	Oil Well								D	D
	15'									D	D
	40'										D
1 EB	NA	Quality Control	D		D	D	D	D			
TOTAL			13 C PS, 1 C DUP, 1 D, 1 EB	10 D PS	6 D PS, 1 DUP, 1 EB	7 D PS, 1 D DUP, 1 EB	6 D PS, 1 DUP, 1 EB	4 D	3 D PS, 1 DUP, 1 EB	38D PS, 3 D DUPS	28 D PS, 2 D DUPS

Notes:

*Methane was analyzed in field with mobile laboratory by ASTM D1946 Hydrogen sulfide was analyzed by Jerome 631-X handheld device.

D = Discrete Sample; PS = Primary Sample; C = Composite Sample; VOCs analyzed in Soil Gas Samples; DUP= duplicate; EB = equipment blank

Field duplicates were collected at a frequency of approximately 10 percent of the primary samples collected. Equipment blanks were collected once per day of field activities.

TABLE 2
SUMMARY TABLE OF VOLATILE ORGANIC COMPOUNDS (VOCs) IN SOIL GAS
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Concentration (micrograms per liter [µg/L])										
Sample Number	Sample Date	Benzene	Bromodichloromethane	Chloroform	Ethylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes, m-,p-	Xylene, o-
SG-1@5'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-1@15'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-2@5' (1PV)	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-2@5' (3PV)	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-2@5' (10PV)	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-2@15' (3PV)	12/11/2013	0.070	ND<0.10	ND<0.10	0.11	0.36	0.23	0.31	0.55	0.14
SG-2@15' (10PV)	12/11/2013	0.058	ND<0.10	ND<0.10	0.14	0.44	0.36	0.46	0.74	0.18
SG-3@5'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-3@15'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-4@5'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	0.17	ND<0.10
SG-4@15'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-5@5'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-5@15'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-6@5'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-6@15'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-7@5'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-7@15'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-8@5'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-8@15'	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-8@15' DUP	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-9@5'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-9@15'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-10@5'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-10@15'	12/13/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-11@5'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-11@5' DUP	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-11@15'	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-11@15' DUP	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-14@5'	12/13/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-14@15'	12/13/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-14@15' DUP	12/13/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-15@5'	12/13/2013	ND<0.030	ND<0.10	0.32	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-15@15'	12/13/2013	ND<0.030	0.20	0.84	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-16@5'	12/13/2013	ND<0.030	ND<0.10	0.15	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
SG-16@15'	12/13/2013	ND<0.030	0.14	0.52	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
Ambient Air	12/11/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
Ambient Air	12/12/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
Ambient Air	12/13/2013	ND<0.030	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10

Notes:

Samples analyzed by EPA Method 8260B by American Analytics.

The complete laboratory analytical reports are included as Appendix E.

ND - Non detect at the established method detection limit.

J - Flagged results between the method detection limit and reporting limit - estimated value.

TABLE 3
SUMMARY TABLE OF METHANE AND HYDROGEN SULFIDE RESULTS IN SOIL GAS
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Concentration in parts per million by volume (ppmv)		
	Date	Methane ASTM D1946	Hydrogen sulfide by Jerome 631-X
SG-1@5'	12/12/2013	ND<1000	ND<0.03
SG-1@15'	12/12/2013	ND<1000	ND<0.03
SG-2@5' (1PV)	12/11/2013	ND<1000	NA
SG-2@5' (3PV)	12/11/2013	ND<1000	NA
SG-2@5' (10PV)	12/11/2013	ND<1000	ND<0.03
SG-2@15' (3PV)	12/11/2013	ND<1000	ND<0.03
SG-3@5'	12/12/2013	ND<1000	ND<0.03
SG-3@15'	12/12/2013	ND<1000	ND<0.03
SG-4@5'	12/12/2013	ND<1000	ND<0.03
SG-4@15'	12/12/2013	ND<1000	ND<0.03
SG-5@5'	12/11/2013	ND<1000	ND<0.03
SG-5@15'	12/11/2013	ND<1000	ND<0.03
SG-6@5'	12/11/2013	ND<1000	ND<0.03
SG-6@15'	12/11/2013	ND<1000	ND<0.03
SG-7@5'	12/11/2013	ND<1000	ND<0.03
SG-7@15'	12/11/2013	ND<1000	ND<0.03
SG-8@5'	12/11/2013	ND<1000	ND<0.03
SG-8@15'	12/11/2013	ND<1000	ND<0.03
SG-8@15' DUP	12/11/2013	ND<1000	NA
SG-9@5'	12/12/2013	ND<1000	ND<0.03
SG-9@15'	12/12/2013	ND<1000	ND<0.03
SG-10@5'	12/12/2013	ND<1000	ND<0.03
SG-10@15'	12/12/2013	ND<1000	ND<0.03
SG-11@5'	12/12/2013	ND<1000	ND<0.03
SG-11@5' DUP	12/12/2013	ND<1000	NA
SG-11@15'	12/12/2013	ND<1000	ND<0.03
SG-11@15' DUP	12/12/2013	ND<1000	NA
SG-11@40'	12/12/2013	ND<1000	ND<0.03
SG-11@40' DUP	12/12/2013	ND<1000	NA
SG-12@5'	12/12/2013	ND<1000	ND<0.03
SG-12@15'	12/12/2013	ND<1000	ND<0.03
SG-12@40'	12/12/2013	ND<1000	ND<0.03
SG-13@5'	12/13/2013	ND<1000	ND<0.03
SG-13@15'	12/13/2013	ND<1000	ND<0.03
SG-13@40'	12/13/2013	ND<1000	ND<0.03
SG-14@5'	12/13/2013	ND<1000	ND<0.03
SG-14@15'	12/13/2013	ND<1000	ND<0.03
SG-14@15' DUP	12/13/2013	ND<1000	NA
SG-14@40'	12/13/2013	ND<1000	ND<0.03
SG-15@5'	12/13/2013	ND<1000	ND<0.03
SG-15@15'	12/13/2013	ND<1000	ND<0.03
SG-15@40'	12/13/2013	ND<1000	ND<0.03
SG-16@5'	12/13/2013	ND<1000	ND<0.03
SG-16@15'	12/13/2013	ND<1000	ND<0.03
SG-16@40'	12/13/2013	ND<1000	ND<0.03

Notes:

NA = Not analyzed

DTSC ACTION LEVELS FOR METHANE

1,000 ppmv - cautionary level - additional investigation to evaluate extent

5,000 ppmv - 10% of LEL- further response action

TABLE 4
DIFFERENTIAL PRESSURE READINGS
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Date	Difference in Pressure (inches water)
SG-1@5'	12/12/2013	0
SG-1@15'	12/12/2013	0
SG-2@5'	12/11/2013	0
SG-2@15'	12/11/2013	0
SG-3@5'	12/12/2013	0
SG-3@15'	12/12/2013	0
SG-4@5'	12/12/2013	0
SG-4@15'	12/12/2013	0
SG-5@5'	12/11/2013	0
SG-5@15'	12/11/2013	0
SG-6@5'	12/11/2013	0
SG-6@15'	12/11/2013	0
SG-7@5'	12/11/2013	0
SG-7@15'	12/11/2013	0
SG-8@5'	12/11/2013	0
SG-8@15'	12/11/2013	0
SG-9@5'	12/12/2013	0
SG-9@15'	12/12/2013	0
SG-10@5'	12/12/2013	0
SG-10@15'	12/12/2013	0
SG-11@5'	12/12/2013	0
SG-11@15'	12/12/2013	0
SG-11@40'	12/12/2013	0
SG-12@5'	12/12/2013	0
SG-12@15'	12/12/2013	0
SG-12@40'	12/12/2013	0
SG-13@5'	12/13/2013	0
SG-13@15'	12/13/2013	0
SG-13@40'	12/13/2013	0.05
SG-14@5'	12/13/2013	0
SG-14@15'	12/13/2013	0
SG-14@40'	12/13/2013	0
SG-15@5'	12/13/2013	0
SG-15@15'	12/13/2013	0
SG-15@40'	12/13/2013	0
SG-16@5'	12/13/2013	0
SG-16@15'	12/13/2013	0
SG-16@40'	12/13/2013	-93

Notes:

Pressure readings were taken after purging the probes.

TABLE 5
SUMMARY TABLE OF ORGANOCHLORINE PESTICIDES IN SOIL
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Sample Date	Concentration (micrograms per kilogram [$\mu\text{g}/\text{kg}$])							
		4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane	Toxaphene
B-51@0.5'	12/11/2013	<2.0	<2.0	<2.0	<1.0	<8.5	<2.0	<1.0	<50
Composite B-1, B-2, B-3	12/11/2013	<2.0	<2.0	<2.0	<1.0	<8.5	<2.0	<1.0	<50
Composite B-1DUP, B-2DUP, B-3DUP	12/11/2013	<2.0	<2.0	<2.0	<1.0	<8.5	<2.0	<1.0	<50
Composite B-4, B-7, B-8, B-11	12/11/2013	<2.0	<2.0	<2.0	<1.0	<8.5	<2.0	<1.0	<50
Composite B-5, B-6, B-9, B-10	12/11/2013	<2.0	<2.0	<2.0	<1.0	<8.5	<2.0	<1.0	<50
Composite B-12, B-14, B-15, B-21	12/11/2013	<2.0	7.3	3.5	<1.0	<8.5	<2.0	<1.0	<50
Composite B-13, B-16, B-19, B-20	12/11/2013	<2.0	10	6.0	<1.0	<8.5	<2.0	<1.0	<50
Composite B-17, B-22, B-23, B-28	12/11/2013	<2.0	24	18	3.2	36	<2.0	2.4	<50
Composite B-18, B-25, B-33, B-40	12/11/2013	<2.0	5.7	3.9	<1.0	<8.5	<2.0	<1.0	<50
Composite B-24, B-31, B-32, B-39	12/10/2013	<2.0	25	19	3.2	43	<2.0	2.6	<50
Composite B-26, B-27, B-34, B-35	12/11/2013	5.1	44	22	2.0	45	<2.0	1.8	<50
Composite B-29, B-30, B-36, B-43	12/10/2013	<2.0	53	46	7.2	78	<2.0	5.7	<50
Composite B-37, B-38, B-44, B-45	12/10/2013	<2.0	26	20	3.3	41	<2.0	2.4	<50
Composite B-41, B-46, B-47, B-50	12/11/2013	<2.0	29	8.1	<1.0	<8.5	<2.0	<1.0	<50
Composite B-42, B-48, B-49	12/10/2013	4.2	25	18	3.0	43	<2.0	1.9	<50
EQUIPMENT BLANK									
		Concentration (micrograms per liter [$\mu\text{g}/\text{l}$])							
EB121013	12/10/2013	<0.05	<0.05	<0.05	<0.02	<0.25	<0.05	<0.02	<2.5
EB121113	12/11/2013	<0.05	<0.05	<0.05	<0.02	<0.25	<0.05	<0.02	<2.5
CHHSL		Concentration (micrograms per kilogram [$\mu\text{g}/\text{kg}$])							
		2300	1600	1600		430	35		460

Notes:

Samples analyzed by EPA Method 8081A.

The complete laboratory analytical reports are included in Appendix E.

< - Non detect at the established method detection limit.

CHHSL - California Human Health Screening Levels CALEPA 2005

TABLE 6
SUMMARY TABLE OF CAM-17 METALS IN SOIL
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Concentration (milligrams per kilogram [mg/kg])																		
Sample Number	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (Total)	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
B-1@0.5'	12/11/2013	<2.0	2.5	89	<1.0	<1.0	6.0	3.3	6.2	4.2	<0.10	<1.0	4.1	<1.0	<1.0	<1.0	23	34
B-1DUP@0.5'	12/11/2013	<2.0	2.5	83	<1.0	<1.0	5.6	3.2	6.2	4.2	<0.10	<1.0	4.1	<1.0	<1.0	<1.0	23	35
B-5@0.5'	12/11/2013	<2.0	1.8	69	<0.99	<0.99	4.8	2.5	5.1	3.7	<0.10	<0.99	3.2	<0.99	<0.99	<0.99	19	26
B-10@0.5'	12/11/2013	<2.0	2.9	100	<1.0	<1.0	6.7	3.7	6.9	4.2	<0.10	<1.0	4.5	<1.0	<1.0	<1.0	26	38
B-11@0.5'	12/11/2013	NA	2.3	NA	NA	NA	NA	NA	NA	3.7	NA	NA	NA	NA	NA	NA	NA	NA
B-15@0.5'	12/11/2013	NA	3.0	NA	NA	NA	NA	NA	NA	4.7	NA	NA	NA	NA	NA	NA	NA	NA
B-16@0.5'	12/11/2013	<2.0	2.5	81	<1.0	<1.0	6.1	3.2	6.6	5.5	<0.10	<1.0	4.3	<1.0	<1.0	<1.0	22	33
B-16@3.0'	12/11/2013	<2.0	4.3	150	<1.0	<1.0	11	5.9	8.4	3.4	<0.10	<1.0	7.0	<1.0	<1.0	<1.0	40	50
B-17@0.5'	12/11/2013	NA	2.4	NA	NA	NA	NA	NA	NA	3.6	NA	NA	NA	NA	NA	NA	NA	NA
B-26@0.5'	12/11/2013	NA	2.3	NA	NA	NA	NA	NA	NA	4.1	NA	NA	NA	NA	NA	NA	NA	NA
B-31@0.5'	12/11/2013	NA	1.2	NA	NA	NA	NA	NA	NA	2.8	NA	NA	NA	NA	NA	NA	NA	NA
B-33@0.5'	12/11/2013	NA	2.7	NA	NA	NA	NA	NA	NA	7.3	NA	NA	NA	NA	NA	NA	NA	NA
B-36@0.5'	12/11/2013	NA	1.6	NA	NA	NA	NA	NA	NA	4.0	NA	NA	NA	NA	NA	NA	NA	NA
B-38@0.5'	12/11/2013	NA	1.3	NA	NA	NA	NA	NA	NA	3.3	NA	NA	NA	NA	NA	NA	NA	NA
B-41@0.5'	12/11/2013	NA	2.9	NA	NA	NA	NA	NA	NA	7.1	NA	NA	NA	NA	NA	NA	NA	NA
B-48@0.5'	12/10/2013	NA	1.5	NA	NA	NA	NA	NA	NA	4.0	NA	NA	NA	NA	NA	NA	NA	NA
B-51@0.5'	12/11/2013	<2.0	4.1	150	<1.0	<1.0	9.5	5.4	8.2	4.2	<0.10	6.3	<1.0	<1.0	<1.0	<1.0	36	46
CHHSL		30	0.07	5200	150	1.7	100,000	660	3000	80	18	380	1600	380	380	5	530	23000
Chemical of Potential Concern?		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
EQUIPMENT BLANK																		
Concentration (milligrams per liter [mg/L])																		
EB121013	12/10/2013	NA	<0.010	NA	NA	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	NA	NA
EB121113	12/11/2013	<0.0050	<0.010	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0050	<0.0050	<0.20	<0.0050	<0.0050	<0.010	<0.0030	<0.015	<0.0030	<0.010

Notes:

Mercury was analyzed by EPA Method 7471A; all other metals were analyzed by EPA Method 6010B.

CHHSL - California Human Health Screening Levels CALEPA 2005

The complete laboratory analytical reports are included in Appendix E.

< - Non detect at the established method detection limit. NA - Not Analyzed

TABLE 7
SUMMARY TABLE OF TPH IN SOIL
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Concentration (milligram per kilogram [mg/kg])							
Sample Number	Sample Date	C8-C10	C10-C18	C18-C28	C28-C36	C36-C40	C8-C40 Total
B-1@0.5'	12/11/2013	<10	<10	<10	<10	<10	<10
B-1DUP@0.5'	12/11/2013	<10	<10	<10	<10	<10	<10
B-5@0.5'	12/11/2013	<10	<10	<10	<10	<10	<10
B-10@0.5'	12/11/2013	<10	<10	<10	<10	<10	<10
B-10@3.0'	12/11/2013	<10	<10	<10	<10	<10	<10
B-16@0.5'	12/11/2013	<10	<10	<10	<10	<10	<10
B-16@3.0'	12/11/2013	<10	<10	<10	<10	<10	<10
B-51@0.5'	12/11/2013	<10	<10	<10	<10	<10	<10
EQUIPMENT BLANK							
Concentration (milligram per liter [mg/L])							
EB121113	12/11/2013	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

Notes:

Samples analyzed by EPA Modified Method 8015.
The complete laboratory analytical reports are included as Appendix E.
Shaded data not within corrected boundaries of project site.
< - Not detected above the established method detection limit.

TABLE 8
SUMMARY TABLE OF PAHs IN SOIL
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Sample Date	Concentration (micrograms per kilogram [$\mu\text{g}/\text{kg}$])																
		2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
B-1@0.5'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-1DUP@0.5'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-5@0.5'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-5@3.0'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-10@3.0'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-16@3.0'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-51@0.5'	12/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
EQUIPMENT BLANK																		
		Concentration (micrograms per liter [$\mu\text{g}/\text{l}$])																
EB121113	12/11/2013	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

Notes:

Samples analyzed by EPA Method 8270/SIM.
The complete laboratory analytical reports are included as Appendix E.
Shaded data not within corrected boundaries of project site.
<- Non detect at the established method detection limit.

TABLE 9
SUMMARY TABLE OF POLYCHLORINATED BIPHENYLS (PCBs) IN SOIL
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Sample Date	Concentration (micrograms per kilogram [µg/Kg])								
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
B-1@0.5'	12/11/2013	<16	<16	<16	<16	<16	<16	<16	<16	<16
B-1DUP@0.5'	12/11/2013	<16	<16	<16	<16	<16	<16	<16	<16	<16
B-5@0.5'	12/11/2013	<16	<16	<16	<16	<16	<16	<16	<16	<16
B-51@0.5'	12/11/2013	<16	<16	<16	<16	<16	<16	<16	<16	<16
EQUIPMENT BLANK										
EB121113	12/11/2013	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Notes:

Samples analyzed by EPA Method 8260B. All samples were nondetect.
The complete laboratory analytical reports are included as Appendix E.
ND - Non detect at the established method detection limit.
Regional Screening Level Resident Soil Table values cite noncarcinogenic screening levels except for (*) which indicates carcinogenic screening levels and (#) which indicates USEPA Region 9 Cancer PRG for Residential Soil.

TABLE 10
SUMMARY TABLE OF DIOXINS/FURANS IN SOIL
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Sample Number	Sample Date	nanogram per kilogram (ng/kg) = ppt																									
		2,3,7,8-TCDF	Total TCDF	2,3,7,8-TCDD	Total TCDD	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	Total PeCDF	1,2,3,7,8-PeCDD	Total PeCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	Total HxCDF	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	Total HxCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	Total HpCDF	1,2,3,4,6,7,8-HpCDD	Total HpCDD	OCDF	OCDD	
B-1@0.5	12/11/2013	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	45
B-1@3.0'	12/11/2013	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	
B-5@0.5'	12/11/2013	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	31	
B-5@3.0'	12/11/2013	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	

Notes:
1 nanogram per kilogram (ng/kg) = 1 ppt
ppt = parts per trillion
Sample analyzed by EPA 8290
< - Non detect at the established method detection limit.
The complete laboratory analytical reports are included as Appendix E.

TABLE 11
DIOXINS/FURANS TOXICITY EQUIVALENT FACTOR
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

ANALYTE	Max Concentration ppt	WHO 2005 TEF	TEQ Concentration
Total HxCDD	8.1	0.1	0.81
OCDD	45	0.0003	0.0135
Total TEQ			0.8235
CHHSL Residential			50 ppt

Note:

CHHSL for Dioxin/Furan from DTSC/HERD Human Health
 Risk Assessment Note 2 dated May 2009

TABLE 12
95% UCL CONCENTRATIONS FOR VOCs IN SOIL GAS at 15'
Irvine Unified School District High School #5 Site A
South of Desert Storm Drive and Irvine Boulevard
Irvine, California

Concentration (micrograms per liter [µg/L])											
Sample Number	Sample Date	Sample Depth	Benzene	Bromodichloromethane	Chloroform	Ethylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes, m,p-	Xylene, o-
SG-1@15'	12/12/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-2@15'	12/11/2013	15'	0.070	<i>0.050</i>	<i>0.050</i>	0.140	0.440	0.360	0.460	0.740	0.180
SG-3@15'	12/12/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-4@15'	12/12/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-5@15'	12/11/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-6@15'	12/11/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-7@15'	12/11/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-8@15'	12/11/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-9@15'	12/12/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-10@15'	12/13/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-11@15'	12/12/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-14@15'	12/13/2013	15'	<i>0.015</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-15@15'	12/13/2013	15'	<i>0.015</i>	0.20	0.84	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
SG-16@15'	12/13/2013	15'	<i>0.015</i>	0.14	0.52	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>	<i>0.050</i>
Number of Samples			14	14	14	14	14	14	14	14	14
Number of Detects			1	2	2	1	1	1	1	1	1
Frequency			7%	14%	14%	7%	7%	7%	7%	7%	7%
Maximum			0.07	0.20	0.84	0.14	0.44	0.36	0.46	0.74	0.18
Minimum			0.02	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Arithmetic Mean			0.02	0.07	0.14	0.06	0.08	0.07	0.08	0.10	0.06
Standard Deviation			0.015	0.045	0.237	0.024	0.104	0.083	0.110	0.184	0.035
tn-1(0.05)			1.771	1.771	1.771	1.771	1.771	1.771	1.771	1.771	1.771
95% UCL			0.03	0.09	0.25	0.07	0.13	0.11	0.13	0.19	0.08

Notes:

Numbers in italics are one half the detection limit

Samples analyzed by EPA Method 8260B by American Analytics.

The complete laboratory analytical reports are included as Appendix E.