

Furuseth, Arlene (MPCA)

From: Grape, Tim [tim.grape@aecom.com]
Sent: Wednesday, February 17, 2010 4:18 PM
To: Stock, Paul (MPCA); Furuseth, Arlene (MPCA)
Subject: Alex Exhaust Vapor Results
Attachments: Table 20 - Vapor.xls

Paul and Arlene,

Attached is a draft Table 20 with the analytical results for the sub-slab vapor sampling conducted at Alex Exhaust on February 4, 2010. The sub-slab results are highlighted in yellow.

No VOC compounds were detected above the Acute Intrusion Screening Values (ISVs) or above 10 times the residential ISVs in the sub-slab sample.

The results of the sub-slab sample indicate that petroleum vapors in exceedance of the ISVs are not extensively accumulating beneath the building floor slab. An Indoor Building Survey was also conducted during the site visit. A floor drain was identified in the garage portion of the building. The tenant indicated that the drain has been blocked for years and that he was not sure where the drain was plumbed to. No evidence of a flammable waste trap was identified in the building and no evidence of vapors were identified coming from the floor drain.

Indoor air sampling for the site building does not appear warranted based on the results of the sub-slab sampling, the Indoor Building Survey and the site usage as an automobile repair shop.

Please call me to discuss the site status at your convenience.

Thanks,

Tim

Timothy J. Grape, P.G.
Project Geologist
Environment
D 763.852.4218 C 612.759.5042
tim.grape@aecom.com

AECOM
161 Cheshire Lane North, Suite 500
Minneapolis, MN 55441
T. 763.852.4200 F.763.473.0400
www.aecom.com

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Table 20 - Results of Soil Gas Sampling for Vapor Intrusion Screening
(Concentrations are Reported in µg/ht)
Partial Listing - Only Compounds Detected in One or More Samples are Included

Sample ID	VP-1 2/8/2007		VP-2 2/8/2007		VP-3 2/8/2007		VP-4 2/8/2007		Field Blank 2/8/2007		VP-IP 11/10/2009		Sub-Slab (VP-1)* 2/4/2010		Acute Intrusion Screening Value	10x Intrusion Screening Value	100x Intrusion Screening Value
	Date	Depth (feet)	Result	Report Limit	Result	Report Limit	Result	Report Limit	Result	Report Limit	Result	Report Limit	Result	Report Limit			
COMPOUNDS		>1,000		>1,000		<1		136		<1		129		<1			
PID (PID units)		3		8		3		3		Ambient		3		<1			
Acetone		312	ND	300	48.6	3.6	48.4	3.1	5.7	0.6	6,220,000 ^b	12,300	35.5	0.66	60,000	310,000	3,100,000
Benzene		15,700	422	33,500	29.1	0.98	21.9	4.2	ND	0.81	213,000	16,600	2.6	0.90	1,000	45	450
2-Butanone (MEK)		390	ND	375	11	0.91	ND	3.9	1.7	0.75	ND	15,400	4.2	0.83	10,000	50,000	500,000
Carbon Disulfide		410	ND	394	3.7	0.95	6.8	4.1	ND	0.79	ND	16,100	ND	0.87	6,000	7,000	70,000
Chloromethane		273	ND	262	ND	0.63	ND	2.7	0.83	0.52	ND	10,800	ND	0.58	1,000	900	9,000
Cyclohexane		4420	918,000	4250	98.5	1.0	27	4.4	ND	0.85	10,100,000 ^c	17,400	2.0	0.94	N/A	60,000	600,000
Dichlorodifluoromethane		650	ND	625	29.7	1.5	ND	6.5	2.2	1.2	ND	25,600	1.9	1.4	N/A	2,000	20,000
Ethanol		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	48,600	195 ^d	2.6	180,000	150,000	1,500,000
Ethylbenzene		18,400	572	18,000	15	1.3	7.2	5.7	ND	1.1	33,800	22,500	8.9	1.2	10,000	10,000	100,000
4-Ethyltoluene		4,050	1,620	5,100	11	3.8	ND	16.2	ND	3.1	ND	64,000	ND	3.4	N/A	N/A	N/A
n-Heptane		288,000	5,400	ND	36.2	1.3	21.1	5.4	ND	1.0	1,730,000	21,200	4.4	1.1	N/A	N/A	N/A
n-Hexane		540,000	4,680	829,000	42.1	1.1	32.5	4.7	ND	0.9	4,950,000 ^e	18,400	2.5	0.99	N/A	20,000	200,000
Methylene Chloride		462	ND	444	2.1	1.1	ND	4.6	ND	0.89	ND	18,200	ND	0.98	10,000	200	2,000
4-methyl-2-pentanone (MIBK)		540	ND	519	ND	4.3	ND	5.4	ND	1.0	ND	21,200	5.9	1.1	N/A	30,000	300,000
Naphthalene		1760	ND	1690	4.3	4.1	ND	17.6	ND	3.4	ND	69,100	ND	3.7	N/A	90	900
2-Propanol		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	64,000	16.6	3.4	3,200	70,000	700,000
Propylene		228	ND	219	167	2.6	267	2.3	ND	0.44	ND	8,960	0.57	0.48	N/A	30,000	300,000
Styrene		910	ND	544	2.9	1.3	ND	5.7	ND	1.1	ND	22,300	ND	1.2	21,000	10,000	100,000
Tetrachloroethene		500	ND	875	3.2	2.1	ND	9.1	ND	1.8	ND	35,800	2.4	1.9	20,000	200	2,000
Toluene		4,100	3,740	481	39.1	1.2	25	5.0	ND	0.96	94,000	19,700	15.4	1.1	37,000	50,000	500,000
1,2,4-Trimethylbenzene		5,930	1,620	6,970	31.3	3.8	ND	16.2	ND	3.1	ND	64,000	ND	3.4	N/A	70	700
1,3,5-Trimethylbenzene		2,370	1,620	4,190	8.9	3.8	ND	16.2	ND	3.1	ND	64,000	ND	3.4	N/A	60	600
Xylenes (m&p)		31,200	1,140	28,600	1100	2.7	14.1	11.4	ND	2.2	62,000	45,100	28.1	2.4	43,000	1,000	10,000
Xylenes (o)		5,180	572	2,760	550	1.3	ND	5.7	ND	1.1	ND	22,500	6.0	1.2	43,000	1,000	10,000

Notes:
Bold = Concentration detected above laboratory reporting limit
^b = Concentration exceeds 100 times the ISV
^c = Concentration exceeds the Acute ISV
^d = Analyte concentration exceeded the calibration range. The reported result is estimated.
^e = Analyte concentration exceeded the calibration range. The reported result is estimated.
 ISV standards based on MPCA ISVs for Vapor Intrusion Table, February, 2009 Version
 E = Analyte concentration exceeded the calibration range. The reported result is estimated.
 NA = No Toxicity Data Available
 ND = Not Detected
 NR = No Analysis Run for this compound, compound was not on analyte list at the time the sample was analyzed
 * = The sub-slab sample was collected from beneath the interior floor slab of the site building located at 905 3rd Avenue East