**Bob Corcoran - 1121 Jerusalem Ave, Uniondale**

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**From:** Charles Sosik <csosik2@optonline.net>
**To:** 'Bob Corcoran' <rkcorcor@gw.dec.state.ny.us>
**Date:** 10/23/2009 10:06 AM
**Subject:** 1121 Jerusalem Ave, Uniondale
**CC:** 'Walter Parish' <wjparish@gw.dec.state.ny.us>, Ernest Lampro <eelampro@gw.dec.state.ny.us>, Merlange Genece <mjgenece@gw.dec.state.ny.us>
**Attachments:** Uniondale Air Table.pdf; Soil Gas locations.pdf

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Bob,
Attached are the results of the sub-slab, indoor and outdoor air testing as specified in the Draft RIWP. We thought it better to go ahead and perform the testing now to see what we have under a worst case condition with the SSDS off for a number of years.

As you will note some VOCs and methane were detected in both sub-slab and indoor air samples. Methane was detected at significantly greater concentrations beneath the slab. The same VOCs parameters were detected in both subslab and indoor air samples suggesting that VOCs are off-gassing as well as methane.

Conditions noted during test:
There are three open test pits through the slab which were loosely covered with plywood.
The building was not ventilated 24 hours prior to the testing or at all for several years
The building has no HVAC system and no HVAC ventilation has occurred.
The indoor air temperature was approximately 85-90 degrees during the test.

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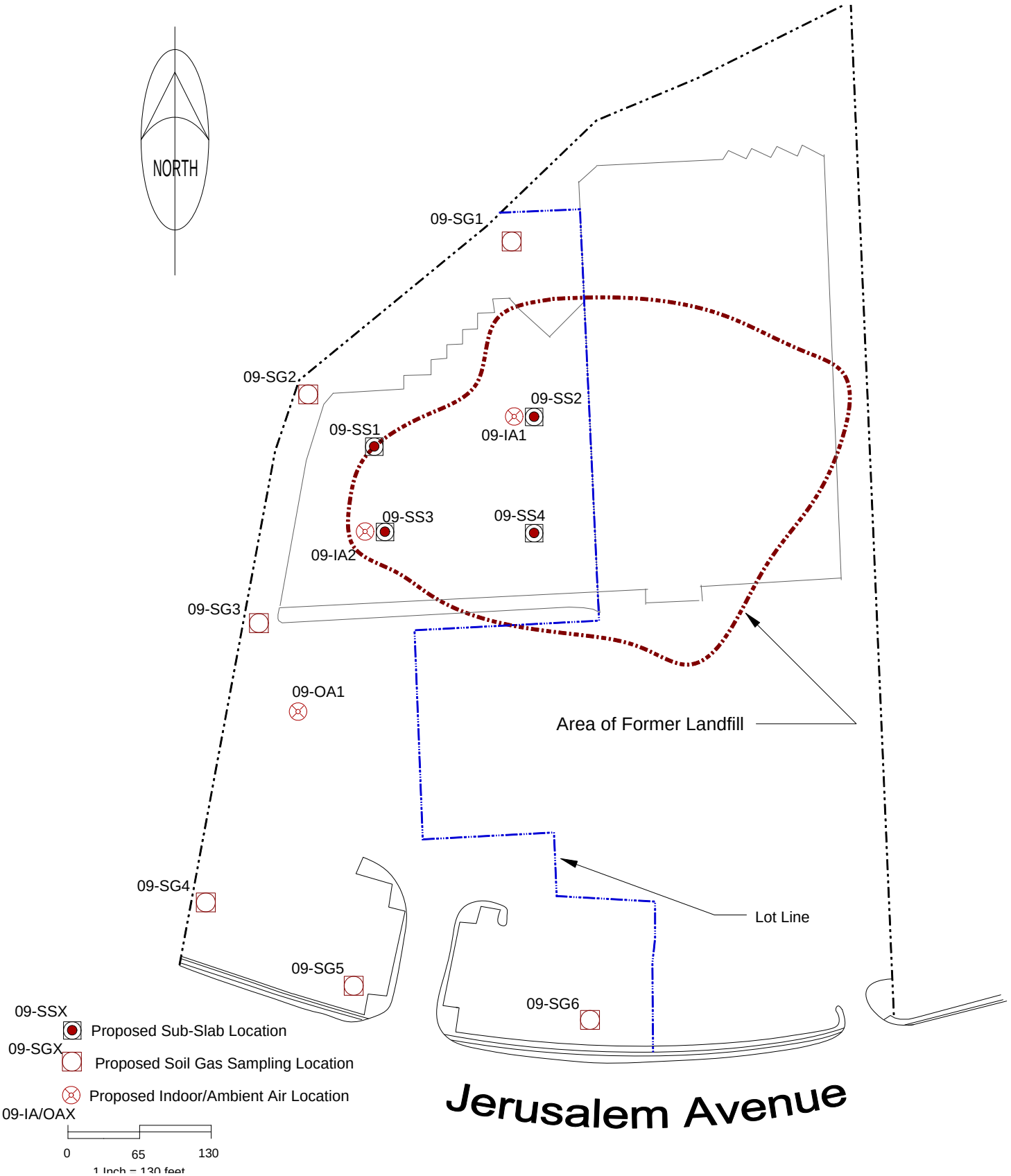
**TABLE 1**
**1121 Jerusalem Avenue**
**Uniondale, New York**
**Air Sampling Results**
**Volatile Organic Compounds**

**Subsurface Soil-Gas Samples - Collected August 7, 2009**

| COMPOUNDS ANALYZED BY YORK ANALYTICAL LABORATORIES, INC. | EPA Target Indoor Air Concentrations | EPA Target Shallow Soil Gas Concentrations | NYSDOH Soil Outdoor Background Levels | NYSDOH 2003: Indoor Air Upper F | SS1 | SS2 | SS3 | SS4 | IA1 | IA2 | OA1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ($ug/m^3$) [b] | ($ug/m^3$) [b] | ($ug/m^3$) [a] | ($ug/m^3$) [a] | ($ug/m^3$) | ($ug/m^3$) | ($ug/m^3$) | ($ug/m^3$) | ($ug/m^3$) | ($ug/m^3$) | ($ug/m^3$) |
| 1,1,1-Trichloroethane | 2200 | 22,000 | <2.0 - 2.8 | 2.5 | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | 0.15 | 1.5 | <1.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.0042 | 0.42 | <1.5 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | 5 | 5,000 | <1.0 | 0.4 | ND | ND | **5.8** | ND | ND | ND | ND |
| 1,1-Dichloroethylene | 2 | 2,000 | <1.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | 20 | 20,000 | NA | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.06 | 60 | <1.0 | 9.8 | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | 0.00011 | 0.11 | <1.5 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 2 | 2,000 | <2.0 | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 0.0094 | 0.94 | <1.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | 0.04 | 40 | <1.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorotetrafluoroethane | NA | NA | NA | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 0.06 | 60 | <1.0 | 3.9 | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Butadiene | 0.000087 | 0.087 | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | 1.1 | 1,100 | <2.0 | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 8 | 8,000 | NA | 1.2 | ND | ND | ND | ND | ND | ND | ND |
| 1,4-Dioxane | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Acetone | 350 | 3,500 | NA | 115 | ND | ND | ND | ND | ND | ND | ND |
| Allyl Chloride | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Benzene | 0.31 | 3.1 | <1.6 - 4.7 | 13 | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.0014 | 1.4 | <5.0 | NA | ND | ND | ND | ND | ND | ND | ND |
| Bromoform | 0.022 | 22 | <1.0 | NA | ND | ND | ND | ND | ND | ND | ND |
| Bromomethane | NA | NA | <1.0 | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | 7 | 7,000 | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Carbon Tetrachloride | 0.0016 | 1.6 | <3.1 | 1.3 | ND | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | 0.6 | 600 | <2.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| Chlorodibromomethane | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Chloroethane | 100 | 100,000 | NA | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | 0.0011 | 1.1 | <2.4 | 1.2 | ND | ND | ND | **6.5** | ND | ND | ND |
| Chloromethane | NA | NA | <1.0 - 1.4 | 4.2 | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | NA | NA | <1.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | NA | NA | NA | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| Cyclohexane | NA | NA | NA | 6.3 | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | NA | NA | <5.0 | NA | ND | ND | ND | ND | ND | ND | ND |
| Dichlorobromomethane | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Dichorodifluromethane | NA | NA | NA | 10.0 | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Acetate | 32 | 32,000 | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.022 | 22 | <4.3 | 6.4 | ND | ND | ND | ND | ND | ND | ND |
| Freon-113 | NA | NA | NA | NA | ND | **8.6** | ND | ND | ND | ND | ND |
| Hexachloro-1,3-butadiene | NA | NA | NA | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| Isopropanol | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Methyl Butyl Ketone | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Methyl Ethyl Ketone | 10 | 10,000 | NA | 16 | **21** | **42** | **4.8** | **5.7** | **5.7** | **7.2** | **3.9** |
| Methyl Isobutyl Ketone | 0.8 | 800 | NA | 1.9 | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | NA | NA | <3.4 | 16 | ND | ND | ND | ND | ND | ND | ND |
| MTBE | 30 | 30,000 | NA | 14 | ND | ND | ND | ND | ND | ND | ND |
| n-Heptane | NA | NA | NA | 18 | ND | ND | ND | ND | ND | ND | ND |
| n-Hexane | NA | NA | <1.5 | 14 | ND | **3.6** | ND | ND | ND | ND | ND |
| Xylene (o) | 7 | 7,000 | <4.3 | 7.1 | ND | ND | ND | ND | ND | ND | ND |
| Xylene (m&p) | 7 | 7,000 | <4.3 | 11 | **6.2** | **7.6** | **4.4** | **6.2** | ND | **8.8** | ND |
| Propylene | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Styrene | 10 | 10,000 | <1.0 | 1.4 | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | 0.0081 | 8.1 | NA | 2.5 | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | NA | NA | NA | 0.8 | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 4 | 4,000 | 1.0 - 6.1 | 57 | **18** | **17** | **10** | **15** | **19** | **18** | ND |
| trans-1,2-Dichloroethene | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.0061 | 6 | NA | NC | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | 0.00022 | 0.22 | <1.7 | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 7 | 7,000 | NA | 12 | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Acetate | 2 | 2,000 | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Vinly Bromide | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | 0.0028 | 2.8 | <1.0 | 0.4 | ND | ND | ND | ND | ND | ND | ND |
| METHANE | NA | NA | NA | NA | **215** | **920** | ND | **888** | **77.6** | **66.3** | ND |
| | | | | | | | | | | | |
| *Total BTEX* | NA | NA | NA | NA | 24 | 25 | 14 | 21 | 19 | 27 | 0 |
| *Total VOCs* | NA | NA | NA | NA | 24 | 70 | 14 | 33 | 25 | 34 | 4 |

Notes:
SG3 Suma cannister failed to draw a sample
NA No guidance value or standard available
(a) NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, February 2005, Summary of Background Levels for Selected
(b) USEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), Table 2c, Risk=1 $x10^{-6}$

Bold text indicates analyte detected above laboratory method detection limit
Shaded text indictes concentration exceeds EPA Deep Soil-Gas guidance value
< Indicates that analyte was undetected by laboratory.
D Concentration identified from analysis of sample at a secondary dilution
SS - Subslab
IA - Indoor Air
OA - Outdoor Air




*Based on Land Title Survey 10/21/96, Barrett, Bonacci, Hyman and Van Weele, P.C.*

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REMEDIAL INVESTIGATION WORK PLAN

**FIGURE 5** PROPOSED INDOOR/AMBIENT AIR AND SOIL GAS LOCATIONS