Revised Supplemental Remedial Investigation Work Plan
On-Site Soil Gas Sampling and Analysis
A.K. Allen Company, Inc.
Mineola, New York
Site Number 130100

March 2004

Prepared for:

A.K. ALLEN COMPANY, INC.
255 East Second Street
Mineola, New York 11501

Prepared by:

CA RICH CONSULTANTS, INC.
17 Dupont Street
Plainview, New York 11803

CA RICH
ENVIRONMENTAL SPECIALISTS

CA RICH CONSULTANTS, INC.
CERTIFIED GROUND-WATER AND
ENVIRONMENTAL SPECIALISTS

March 24, 2004

NYSDEC
Division of Hazardous Waste Remediation
625 Broadway
Albany, New York 12233-7015

Attention: Kevin Carpenter, P.E.

Re: **Revised Supplemental Remedial Investigation Work Plan**
On-Site Soil Gas Sampling and Analysis
A.K. Allen Company, Inc.
Mineola, New York
Site Number 130100

Dear Mr. Carpenter:

The following procedures will be employed for the installation and samplings of three soil gas probes (identified as SG-3, SG-4, and SG-5) in the rear of the AK Allen facility as shown on Figure 1. Prior to installing the probes the footing depth of the building will be verified by manually digging a trench adjacent to the exterior wall.

Once the footing depth is confirmed, a truck-mounted Geoprobe™ drill rig will be mobilized to install the probes. Probes SG-3 and SG-4 will be constructed of 1-inch diameter Schedule 40 PVC pipe and equipped with a screened section from 0-6 inches below the bottom of the building footing and as close to the building as possible. Probe SG-5 will be equipped with 6-inches of screen at the same depth as the residual volatile organic compounds (VOCs) on the Long Island Rail Road Property (9-9.5 feet below grade). A profile of the general construction details for the proposed probes is also included on Figure 1.

One volume of vapor will be purged from each probe using a portable vacuum pump set at a rate of 1 liter per minute. The volume of air to be removed will be calculated in the field based upon the total depth of the probe. The formula for the volume of the casing is $3.14 \times r^2 \times H$ [61.02 cubic inches equals one liter]. It is anticipated that approximately 0.7 liters of air will be purged from each shallow probe, and 1.5 liters will have to be purged from the deep probe. After purging,

we will collect three (3) air samples in accordance with the *sampling, sample preparation, and analysis requirements of EPA Compendium Method TO-15.* The stainless steel canisters required by Method TO-15 will be specially calibrated and prepared at Severn Trent Laboratories to collect six (6) liters of air.

At the site, the steel canister(s) will be connected to a quick grab regulator by sliding back the collar on the regulator and connecting it to the sampler tip of the steel canister. Sampling will be deemed complete once the regulator reads 1-2 pounds of pressure. The 6-liter canister(s) will be calibrated in the laboratory for a target of a 1-hour collection period or 100 ml/minute flow rate. The collar will be slid back again to disconnect the regulator from the canister, and the stainless steel containers will be plugged and shipped via overnight courier to the Severn Trent Facility in Knoxville, Tennessee for chemical analysis.

The laboratory analysis consists of extracting the collected gas, and injecting it into a Gas Chromatographic/Mass Spectrometric System (GC/MS) to determine the micrograms of the various VOCs in the air. The micrograms of each VOC in the gas and total sample volume will then be used to estimate each of the detected VOC concentrations in the samples. A table containing the testing parameters and related reporting limits is attached. For your convenience the reporting limits are given in both ppbv and ug/m^3.

The results of these analyses will be included with the results of the soil samples and the soil gas samples collected along the LIRR tracks and right-of-way in a Supplemental Remedial Investigation Report.

Please contact us once you have reviewed this document so that we may schedule this next phase of work.

Sincerely,

CA RICH CONSULTANTS, INC.

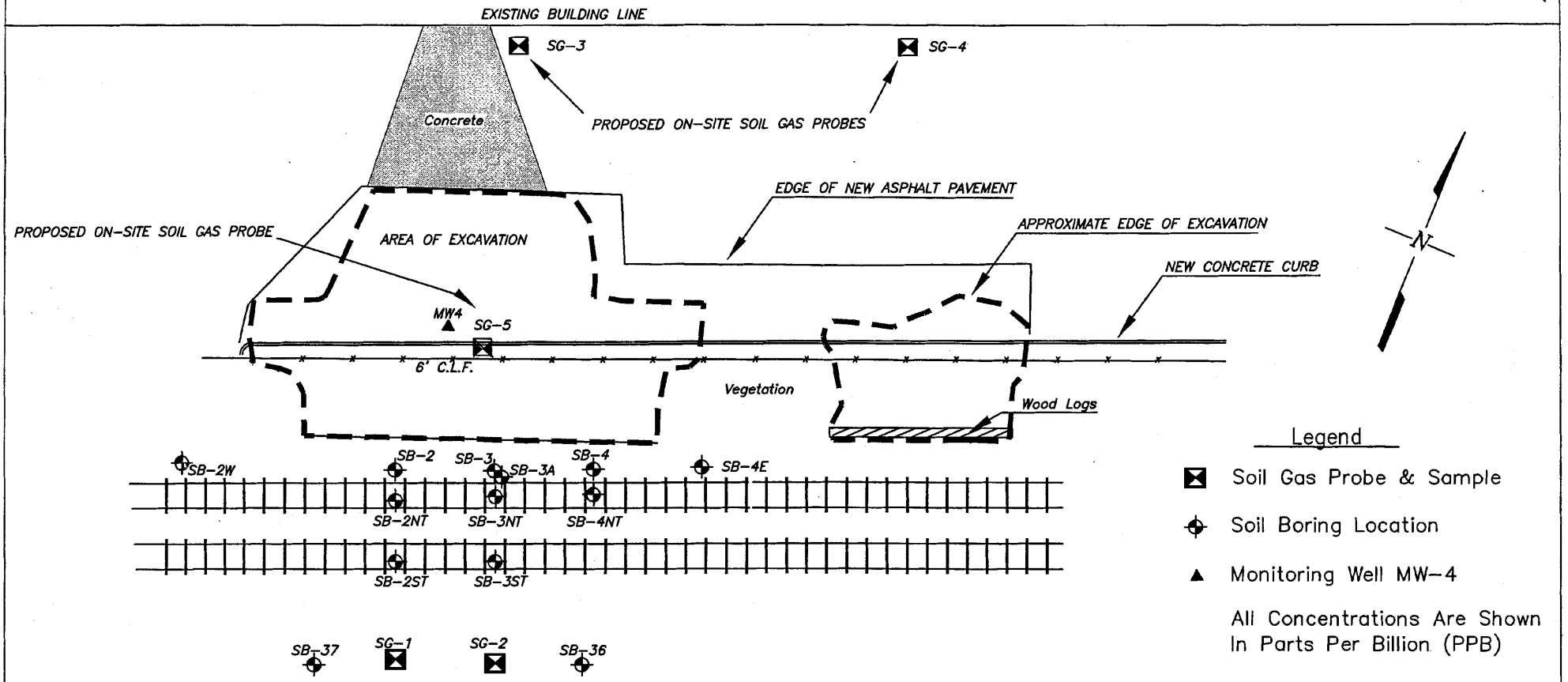
Eric A. Weinstock
Associate

cc: Ronald Buttner
Dan Palladino
Steve Latham, Esq.
Alali Tamuno, Esq.
Gary Litwin

Users/Eric/docs/AKAllen/Supp RI/Supp RI work plan for on-site soil gas with NYSDEC comments

FIGURE

AK ALLEN FACILITY

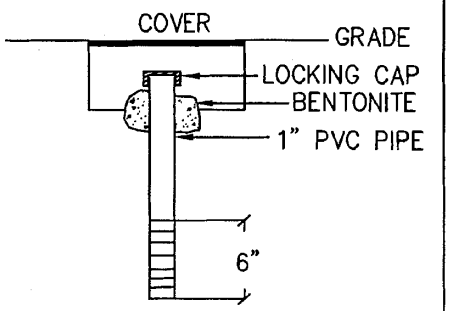


Legend

- Soil Gas Probe & Sample
- Soil Boring Location
- ▲ Monitoring Well MW-4

All Concentrations Are Shown In Parts Per Billion (PPB)

PROFILE



0 10 20 30 40 50

Graphic Scale In Feet

CA RICH CONSULTANTS, INC.

Certified Ground-Water and Environmental Specialists
17 Dupont Street, Plainview, New York 11803

TITLE: PROPOSED ON-SITE SOIL GAS PROBES	DATE: 3/22/04
	SCALE: 1" = 30'
FIGURE: 1	DRAWN BY: S.T.M.
DRAWING NO: 9769-1A.pg	APPR. BY: E.A.W.

AK ALLEN CORPORATION
255 EAST 2ND STREET
MINEOLA, NEW YORK

Table

Reporting Limits For Volatile Organic Compounds In Air

SEVERN TRENT STL

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Tel: 865 291 3000 Fax: 865 584 4315
www.stl-inc.com

Table of Compounds and Reporting Limits

Compound Name	ppbvRL	ug/m3RL	Compound Name	ppbvRL	ug/m3RL
1,1,1-Trichloroethane	0.2	1.09	cis-1,3-Dichloropropene	0.2	0.91
1,1,2,2-Tetrachloroethane	0.2	1.37	dichlorodifluoromethane	0.2	0.99
1,1,2-Trichloroethane	0.2	1.09	Ethylbenzene	0.2	0.87
1,1,2-Trichlorotrifluoroethane	0.2	1.53	Hexachlorobutadiene	0.2	2.13
1,1-Dichloroethane	0.2	0.81	m and p-Xylene	0.2	0.87
1,1-Dichloroethene	0.2	0.79	Methylene Chloride	0.5	1.74
1,2,4-Trichlorobenzene	0.2	1.48	o-Xylene	0.2	0.87
1,2,4-Trimethylbenzene	0.2	0.98	Styrene	0.2	0.85
1,2-Dibromoethane	0.2	1.54	Tetrachloroethene	0.2	1.36
1,2-Dichlorobenzene	0.2	1.2	Toluene	0.2	0.75
1,2-Dichloroethane	0.2	0.81	trans-1,3-Dichloropropene	0.2	0.91
1,2-Dichloropropane	0.2	0.92	Trichloroethene	0.2	1.07
1,2-Dichlorotetrafluoroethane	0.2	1.4	Trichlorofluoromethane	0.2	1.12
1,3,5-Trimethylbenzene	0.2	0.98	Vinyl Chloride	0.2	0.51
1,3-Dichlorobenzene	0.2	1.2	2-Butanone	0.5	1.47
1,4-dichlorobenzene	0.2	1.2	Acetone	5	11.88
Benzene	0.2	0.64	Cumene (isopropylbenzene)	0.2	0.98
Benzyl Chloride	0.2	1.04	MTBE	0.5	1.8
Bromomethane	0.2	0.78	Naphthalene	0.2	1.05
Carbon Tetrachloride	0.2	1.26	n-Butylbenzene	0.2	1.1
Chlorobenzene	0.2	0.92	n-Propylbenzene	0.2	0.98
Chloroethane	0.2	0.53	sec-Butylbenzene	0.2	1.1
Chloroform	0.2	0.98	4-Isopropyltoluene	0.2	1.1
Chloromethane	0.5	1.03	Carbon Disulfide	0.2	0.62
cis-1,2-Dichloroethene	0.2	0.79			