PROPOSED REMEDIAL ACTION PLAN

Site Name: NM - Albion MGP
State Superfund Project
Albion, Orleans County
Site No. 837012

February 2010

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the above referenced site. The disposal of hazardous waste at the site has resulted in threats to public health and the environment that would be addressed by the remedy proposed by this Proposed Remedial Action Plan (PRAP). The disposal of hazardous wastes at this site, as more fully described in Section 6 of this document, have contaminated various environmental media.

The proposed remedy, discussed in Section 8, is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This PRAP identifies the preferred remedy, summarizes the other alternatives considered, and discusses the reasons for the preferred remedy. The Department will approve a final remedy for the site only after careful consideration of all comments received during the public comment period.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all PRAPs. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the reports and documents, which are available at the following repositories:

SWAN PUBLIC LIBRARY
NORTH MAIN STREET
ALBION, NY 14411
Phone: 585-589-4246

A public comment period has been set from **02/12/2010 to 03/14/2010**

A public meeting is scheduled for the following date: **03/01/2010 at 7:00 PM**

Public meeting location: **Albion Fire Department, Inc.**

At the meeting, the findings of the remedial investigation (RI) and the feasibility study will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP.

Written comments may also be sent through 03/14/2010 to:

Jamie Verrigni
Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
jlverrig@gw.dec.state.ny.us

The Department may modify the proposed remedy or select another of the alternatives presented in this PRAP, based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives identified here. Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

SECTION 3: SITE DESCRIPTION AND HISTORY

3.1: Location and Description

Location Description: the Albion Former Manufactured Gas Plant (MGP) Site is located at Ingersoll Street in the Village of Albion, Orleans County, NY. The site consists of two adjoining parcels formerly occupied by a single MGP. The western parcel (0.3 acres) is owned by National Grid and the site investigation found no environmental conditions requiring remediation. Consequently, the remedial investigation (RI) focused on the eastern parcel (0.2 acres), which is currently owned by New York State Electric and Gas Corporation (NYSEG).

Predominant Site Features: the 0.2 acre eastern parcel of the site is a vacant parcel that is covered with grass over roughly half of the parcel. The remaining portion of the site is covered with a layer of crushed stone used as an access way from Ingersoll Street to the eastern entrance gate to the National Grid Substation, which is located on the 0.3 acre western parcel of the site.

Current Zoning/Use: the eastern parcel of the site is currently inactive and the western parcel is currently the location of an active National Grid gas regulator. The site is zoned for commercial

use.

Surrounding Zoning and Uses: the surrounding parcels are a mixture of commercial and residential properties. The nearest residential property is roughly 50 yards to the south. A lift bridge for the NYS Barge Canal and control tower border the site to the northeast. North Platt Street is to the west of the site beyond several commercial properties, two commercial properties are adjacent to the site on the south, and a walking trail along the NYS Barge Canal borders the site to the north. Ingersoll Street borders the site to the east.

Historical Use(s) and Source(s) of Contamination: from approximately 1860 until 1928, a manufactured gas plant (MGP) operated on the site. The historic use of the site as a MGP has led to site contamination from the gas holders and other operations.

Remedial Party and Program: the remedial program for this site is being carried out by National Grid pursuant to a consent order with the Department.

Investigations/Actions Performed to Date: completed investigations include: Two Preliminary Site Assessments (PSAs) conducted in 1997 and 1999; a Phase II Site Investigation conducted in 2001; a soil and groundwater Remedial Investigation conducted in 2003; a Supplemental Site Investigation conducted in 2005; and follow-up groundwater monitoring well installation and sampling activities conducted in 2007. The Final Comprehensive Remedial Investigation Report was approved in December 2008. An additional NAPL assessment of monitoring well MW-8 was conducted at the site in August 2009.

Current Actions: a Feasibility Study (FS) has been developed to evaluate potential remedial alternatives for the site. The FS is currently under review.

3.2: Remedial History

In response to the potential threat of unknown MGP sites, the Department has developed and implemented one of the most aggressive MGP initiatives in the country. The Department estimates that there could be up to 300 MGP sites and related Holder Stations throughout New York State. Of these, approximately 245 have been identified to date and remedial programs are either underway or scheduled to start at over 200 of these sites, of which this site is one, through orders or legal agreements with the operating utilities in the State.

As noted above, from approximately 1860 until 1928, a MGP operated on this site. The historic use of the site as a MGP has led to site contamination from the gas holders and other operations.

Investigation/Actions to date:

Project Name	**Start date**
Site Characterization	07/01/1996
Remedial Investigation	01/29/2003

- Site Characterization completed on 06/01/1998

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings when assessing the nature and extent of contamination. For this site, alternatives that may restrict the use of the site to commercial criteria as described in Part 375-1.8(g) are being evaluated in addition to unrestricted SCGs.

A comparison of the appropriate SCGs for the identified land use against the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site documented to date include:

Niagara Mohawk Power Corporation

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Survey of residential water supply wells,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater and soil vapor
- Sampling of surface water and sediment, groundwater,
- Ecological and Human Health Exposure Assessments

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and surface and subsurface soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCG in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil

The data has identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination discussion in Exhibit A provides a more complete summary of the data. Additionally, the RI contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benzene
ethylbenzene
toluene
xylene (mixed)
acenaphthene
benzo(a)pyrene
benzo(b)fluoranthene
benzo[k]fluoranthene
chrysene
fluorene
indeno(1,2,3-cd)pyrene
naphthalene
phenanthrene
cyanides (soluble cyanide salts)
acenapthylene
anthracene
benz(a)anthracene
benzo(ghi)perylene
dibenz[a,h]anthracene
fluoranthene
pyrene

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable standards, criteria and guidance for:

- groundwater
- soil

6.2: Interim Remedial Measures

There were no IRMs performed at this site during the RI.

6.3: Summary of Human Exposure Pathways

This section describes the current or potential human exposures to persons at or around the site that may result from the contamination. A more detailed discussion of the human exposure pathways can be found in the RI Report available at the document repository. An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

No complete exposure pathways exist at this time. People are not drinking the contaminated groundwater because the area is served by a public water supply that obtains its water from a different source. The potential for exposures related to soil vapor intrusion has been evaluated at the off-site structures and no further actions are necessary at this time. The potential exists for people to be exposed to site-related contaminants as follows:

- Exposures to contaminated surface soil could occur by either direct contact with or ingestion of soil. Public access is prohibited, therefore, exposures to contaminated soil is not likely. Workers who dig or enter excavations on-site or off-site could potentially be exposed to contaminated soil through dermal contact and/or incidental ingestion.

6.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The Fish and Wildlife Impact Analysis (FWIA), which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site poses to fish and wildlife receptors.

The Albion Former MGP site is located along the Erie Barge Canal. The site has not resulted in an impact on fish and wildlife receptors since the site is not a wildlife habitat, as it is located in a

commercially zoned area and surface contamination has not migrated off-site. No pathway for migration of site related contaminants to the surface water or sediment in the Canal has been identified. Surface runoff from the site is collected by a catch basin located in the southwestern portion of the site and routed to the sewer along East Bank or Ingersoll Streets, however, due to the presence of the soil/crushed stone surface cover at the site potential off-site chemical transport via storm water runoff does not exist.

The FWIA did not identify any current or potential impacts to ecological resources.

Groundwater depths at the site typically range from approximately 6 to 10 feet bgs and it is influenced by the seasonal fluctuation in NYS Barge Canal Operating water levels. During operating canal levels (non-winter season), groundwater flows from the site in a southeasterly direction toward the sanitary sewers located along Ingersoll and East Bank Streets. The groundwater flow direction shifts to an easterly and northeasterly direction during the drained canal level (winter months), however discernible impacts to the Canal are not apparent.

Site related contamination is impacting groundwater. The groundwater is not used as a source of potable water. Protection of the groundwater resource will be addressed in the remedy selection process.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for the Site were identified, screened and evaluated.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

7.1: Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the Feasibility Study report.

The first two evaluation criteria are termed “threshold criteria” and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative’s ability to protect public health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will

address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

8: Elements of the Proposed Remedy

The basis for the Department's proposed remedy is set forth at Exhibit C.

The estimated present worth cost to implement the remedy is $725,000. The cost to construct the remedy is estimated to be $432,000 and the estimated average annual cost is $21,000.

The elements of the proposed remedy are as follows:

1. A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

2. The upper two feet of existing surface soil and shallow historic fill across the eastern parcel of the site will be excavated and disposed off-site at an approved facility.

3. Construction of a soil cover on the eastern parcel of the site over exposed surface soils to prevent exposure to contaminated soils. The two foot cover will consist of clean soil underlain by a demarcation layer to delineate the clean soil from the historic fill. The top six inches would consist of soil to support vegetation. Clean soil is soil that is tested and meets the Division of Environmental Remediation's criteria for commercial SCOs. The non-vegetated area (access drive) is to be covered with stone.

4. The site would be graded to maintain current surface water drainage patterns.

5. To maximize the net environmental benefit, Green remediation and sustainability efforts would be considered in the design and implementation of the remedy to the extent practicable, including:

- using renewable energy sources
- reducing green house gas emissions
- encouraging low carbon technologies
- foster green and healthy communities
- conserve natural resources
- increase recycling and reuse of clean materials
- design cover systems to be usable for habitat or recreation
- design storm water management systems to recharge aquifers

6. Imposition of an institutional control in the form of an environmental easement on both parcels for the controlled property that would:

a) require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
b) restrict the use of the site, subject to local zoning laws, to:

[ ] residential use [ ] restricted residential use [x] commercial use [x] industrial use

c) restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;
d) prohibit agriculture or vegetable gardens on the controlled property; and
e) require compliance with the Department-approved Site Management Plan.

7. Since the remedy results in contamination remaining at the site that does not allow for unrestricted use, a Site Management Plan is required, which includes the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to assure the following institutional and/or engineering controls remain in place and effective:
  - Institutional Controls:
    - the environmental easement discussed above
  - Engineering Controls:
    - the soil cover discussed above

  This plan includes:
  - an Excavation plan, which provisions for management of future excavations in areas of remaining contamination;
  - descriptions of the provisions of the environmental easement including any land use, and/or groundwater use restrictions;
  - provisions for the management and inspection of the identified engineering controls;
  - maintaining site access controls and Department notification; and
  - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

- a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes:
  - monitoring of groundwater to assess the performance of the natural attenuation in achieving groundwater standards in accordance with the selected remedy;
  - a schedule of monitoring and frequency of submittals to the Department; and
  - provision to evaluate the potential for soil vapor intrusion to occur in any building developed on the site, including provision for mitigation of any impacts identified.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial investigation. As described in the RI report, waste/source materials were identified at the site and are impacting groundwater and soil.

Waste/Source Areas

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium.

Wastes and Source areas were identified at the site. Coal tar and other MGP wastes were found within the vicinity of the former gasholders. MGP- derived residual coal tar was identified in subsurface soil at a depth interval of 12 to 18 feet bgs at one location on-site (MW-8). The accumulated coal tar (about 1 to 2 inches in height measured from the well bottom) was removed from the well with a bailer in 2005. Subsequent well inspections were completed in 2007 and 2009 and additional tar was not found to have accumulated in the well. A distinct layer of black cinder-like material and ash-like material (CLM/ALM) related to historic MGP operations was also found in the shallow soils on-site, which contained polycyclic aromatic hydrocarbons (PAHs) above SCGs.

The waste/source areas identified will be addressed in the remedy selection process.

This section describes the findings for all environmental media that were evaluated. As described in the RI report, groundwater and soil samples were collected to characterize the nature and extent of contamination.

For each media, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into three categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and inorganics (metals). For comparison purposes the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCG identified in Section 4 is also presented.

Groundwater

Groundwater samples were collected from overburden monitoring wells, as well as one bedrock monitoring well (MW-7). The samples were collected to assess groundwater conditions on and off-site. The results indicate that contamination in overburden groundwater at the site exceeds the SCGs for volatile organic compounds, semi-volatile organic compounds, and inorganics. No site-related contamination was found in the off-site monitoring wells or in the bedrock groundwater.

Table 1 - Groundwater				
Detected Constituents		Concentration Range Detected[a]	SCG[a,b]	Frequency Exceeding SCG
VOCs	Benzene	ND – 2900	1	5/20
	Ethylbenzene	ND - 580	5	4/20
	Isopropylbenzene	ND - 27	5	2/7
	Methylene Chloride	ND - 26	5	1/14
	Styrene	ND - 220	5	1/20
	Toluene	ND - 3100	5	4/20
	Xylene (total)	ND - 4200	5	4/20
SVOCs	Acenaphthene	ND – 96	20	2/20
	Benzo(a)anthracene	ND – 0.9	0.002	1/20
	Benzo(a)pyrene	ND – 2.0	0.002	1/20
	Benzo(b)fluoranthene	ND – 2.0	0.002	1/20
	Benzo(k)fluoranthene	ND – 0.9	0.002	1/20
	Chrysene	ND – 2.0	0.002	2/20
	Fluorene	ND – 80	50	1/20
	Indeno(1,2,3-c,d)pyrene	ND – 1.0	0.002	1/20
	Naphthalene	ND – 5300	10	4/20
	Phenanthrene	ND – 63	50	2/20
	Phenol	ND - 5	1	1/6
Metals	Cyanide	ND – 0.475	0.2	6/13
	Iron	0.225 – 2.62	0.3	2/3
	Manganese	0.275 – 0.559	0.3	2/3

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

The primary groundwater contaminants are benzene, toluene, ethylbenzene and xylene (BTEX), PAHs and cyanide associated with operation of the former gas plant. As noted on Figure 3, the primary groundwater contamination is associated with the former western gas holder and the residual coal tar.

Based on the findings of the RI, the disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of groundwater to be addressed by the remedy selection process are BTEX, PAHs, and cyanide.

Soil

Surface and subsurface soil samples were collected at the site during the RI. Surface soil samples were collected from a depth of 0-2 inches to assess direct human exposure, and from a depth of 2-6 feet. Subsurface soil samples were collected from a depth of 6-22 feet to assess soil contamination. The results indicate that soils at the site exceed the unrestricted SCG for volatile organics, semi-volatile organics, and metals. However, only SVOCs and metals exceed commercial SCGs. Several off-site soil samples collected during the RI detected PAHs above SCGs; however the PAHs were detected at comparatively lower concentrations than on-site samples. Given the long industrial history of the canal corridor, these levels were determined to be background and not MGP-related.

Table 2 - Soil

Detected Constituents		Concentration Range Detected[a]	Unrestricted SCO[a,b]	Frequency Exceeding Unrestricted SCO	Commercial SCO[a,c]	Frequency Exceeding Commercial SCO
VOCs	Acetone	ND - 22	0.05	5/37	500	0/37
	Benzene	ND – 14	0.06	6/37	44	0/37
	Ethylbenzene	ND –18	1	5/37	390	0/37
	Methylene Chloride	ND – 25	0.05	3/37	500	0/37
	Toluene	ND – 51	0.7	4/37	500	0/37
	xylene	ND - 260	0.26	7/37	500	0/37
SVOCs	Acenaphthene	ND - 73	20	3/61	500	0/61
	Acenaphthylene	ND - 210	100	2/61	500	0/61
	Anthracene	ND - 400	100	3/61	500	0/61
	Benzo(a)anthracene	ND - 720	1	39/61	5.6	26/61
	Benzo(a)pyrene	ND - 590	1	39/61	1	39/61
	Benzo(b)fluoranthene	ND - 440	1	38/61	5.6	27/61
	Benzo(g,h,i)perylene	ND -290	100	2/61	500	0/61
	Benzo(k)fluoranthene	ND – 590	0.8	39/61	56	5/61
	Chrysene	ND - 600	1	38/61	5.6	26/61
	Dibenzo(a,h)anthracene	ND - 130	0.33	36/61	0.56	35/61
	Fluoranthene	ND - 1500	100	5/61	500	2/61

	Fluorene	ND - 210	30	5/61	500	0/61
	Indeno(1,2,3-c,d)pyrene	ND – 300	0.5	38/61	5.6	20/61
	Naphthalene	ND - 910	12	7/61	500	1/61
	Phenanthrene	ND - 1200	100	5/61	500	2/61
	Pyrene	ND - 1200	100	4/61	500	2/61
Metals	Cyanide	0.507 – 32.7	27	1/4	27	1/4

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Commercial Soil Cleanup Objectives.

The primary soil contaminants are PAHs and cyanide associated with residues from the operation of the former MGP. As noted on Figures 4 and 5, the primary soil contamination is associated with the former MGP structures including the gas holders.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are PAHs and cyanide.

Soil Vapor Intrusion

VOCs were not detected in on-site shallow soil samples above commercial SCOs and no occupied structures exist on-site. A commercial business (currently a hair salon) is located immediately adjacent to the southern site boundary. MGP-related VOCs have not been detected in wells located at the southern downgradient site boundary (MW-6) or off-site (MW-7, MW-9 and MW-10) in the direction of groundwater flow. Therefore, the potential for soil vapor intrusion has not been evaluated on-site or adjacent to the site. The relevancy of soil vapor migration may need to be investigated in the future if land use on-site or adjacent to the site changes (i.e., future development).

Exhibit B

SUMMARY OF THE REMEDIATION OBJECTIVES

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial objectives for this site are:

Public Health Protection

Groundwater

- Prevent people from drinking groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with contaminated groundwater.
- Prevent inhalation of contaminants from groundwater.

Soil

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of contaminants volatilizing from the soil.

Environmental Protection

Groundwater

- Restore the groundwater aquifer to meet ambient groundwater quality criteria, to the extent feasible.
- Prevent discharge of contaminated groundwater to surface water.

Soil

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Exhibit C

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Exhibit B) to address the contaminated media identified at the site as describe in Section 6:

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2: Site Management

The Site Management Alternative requires only institutional controls for the site. This alternative includes institutional controls, in the form of an environmental easement on both parcels and a site management plan, necessary to protect public health and the environment from any contamination identified at the site and the development of excavation procedures for soil and groundwater exposure. Under this alternative the potential future SMP implementation activities that require minimizing worker exposure to groundwater would be addressed.

Present Worth: *$138,000*
Capital Cost: *$42,000*
Annual Costs: *$7,000*

Alternative 3: Restoration to Pre-Disposal or Unrestricted Conditions

This alternative achieves all of the SCGs discussed in Section 6.1.1 and soil meets the unrestricted soil cleanup objectives listed in Part 375-6.8(a). This alternative would include the excavation and removal of soil above Part 375 unrestricted use SCOs. Under this alternative, all of the historic fill material, which is estimated to include the upper 8 to 10 feet of soil, as well as deeper soils in the area of the western gas holder and impacted soils in the area of monitoring well MW-8, would be removed. Soil removal would extend to a depth of approximately 18 to 20 feet below grade in the areas where deeper soils would be excavated. It is estimated that approximately 2,200 cubic yards of soil would be removed and disposed off-site. The remedy will not rely on engineering or institutional controls to prevent future exposure. There will be no site management, no restrictions and no periodic review. This remedy will have no annual cost, only the capital cost.

Capital Cost: *$2,100,000*

Alternative 4: Limited Soil Removal and Soil Cover Installation with Natural Attenuation of Groundwater Contamination

This alternative would include the removal of the upper two feet of soil and the placement of a soil cover across the site to prevent direct contact with on-site soil. It is estimated that approximately 500 cubic yards of soil would be

removed and disposed of off-site. A clean soil demarcation layer (i.e., geotextile or snow fence) would be placed across the bottom of the excavation prior to backfilling. The excavation would be backfilled with 1.5 feet of certified clean soil from an approved source per the allowable constituent levels for imported fill or soil found in Appendix 5A of NYSDEC DER-10 and properly graded to maintain current surface water drainage patterns. Approximately 6 inches of topsoil would be placed over the clean fill and seeded. The area of the access drive to the substation from Ingersoll Street would be covered with crushed stone. This alternative would also rely on naturally occurring chemical, biological and/or physical processes to degrade MGP related contaminants of concern in groundwater. The monitoring program would assess groundwater flow direction, conditions affecting natural attenuation processes and monitor concentrations of COCs in groundwater.

Institutional controls as described above for Alternative 2 would also be included in Alternative 4. Additional details of this approach can be found in the FS under Alternative S-3 and GW-3.

Present Worth: *$725,000*
Capital Cost: *$432,000*
Annual Costs (years 1-5): *$28,000*
Annual Costs (years 6-30): *$20,000*

Alternative 5: Limited Soil Removal and Soil Cover Installation with Enhanced Natural Attenuation of Groundwater Contamination

This alternative would include the removal of the upper two feet of soil and the placement of a soil cover across the site to prevent direct contact with on-site surface/shallow soil the same as for Alternative 4. This alternative would also utilize oxygen-releasing compounds (ORC) and/or other amendments (e.g., nutrients) to stimulate the natural biological processes that degrade dissolved MGP related constituents in on-site groundwater. A monitoring program would be developed to demonstrate continued stability of the plume, detect off-site migration and monitor the concentrations of COCs and natural attenuation parameters. It is anticipated that two additional monitoring wells would be added to monitor downgradient groundwater quality.

Institutional controls as described above for Alternative 2 would also be included in Alternative 5. Additional details of this approach can be found in the FS under Alternative S-3 and GW-4.

Present Worth: *$1,071,000*
Capital Cost: *$544,000*
Annual Costs (years 1-5): *$44,000*
Annual Costs (years 6-30): *$40,000*

Exhibit D

Table 3
Remedial Alternative Costs

Remedial Alternative	Capital Cost ($)	Annual Costs ($)	Total Present Worth ($)
Alternative 1 No Action	0	0	0
Alternative 2 Site Management	42,000	7,000	138,000
Alternative 3 Restoration to Pre-Disposal or Unrestricted Conditions	2,100,000	0	2,100,000
Alternative 4 Limited Soil Removal & Soil Cover Installation with Natural Attenuation of Groundwater Contamination	432,000	21,000	725,000
Alternative 5 Limited Soil Removal & Soil Cover Installation with Enhanced Natural Attenuation of Groundwater Contamination	544,000	41,000	1,071,000

Exhibit E

SUMMARY OF THE PROPOSED REMEDY

The Department is proposing Alternative 4, Limited Surface/Shallow Soil Removal and Soil Cover Installation with Natural Attenuation of Groundwater Contamination as the remedy for this site. The elements of this remedy are described at the end of this section.

Basis for Selection

The proposed remedy is based on the results of the RI and the evaluation of alternatives.

Alternative 4 is being proposed because, as described below, it would satisfy the threshold criteria and provide the best balance of the balancing criterion described in Section 7.2. It would achieve the remediation goals for the site by removing the upper two feet of soil, placing a soil cover across the site to prevent direct contact with on-site soil, and relying on naturally occurring chemical, biological and/or physical processes to degrade MGP related COCs in groundwater. This alternative addresses the soil contamination on-site and groundwater.

The evaluation of the alternatives is discussed below.

Alternative 1 (No Action) does not provide any protection to public health and the environment and will not be evaluated further. Alternative 3, by removing all soil contaminated above the "unrestricted" soil cleanup objective, meets the threshold criteria. Alternatives 2, 4 and 5 also comply with this criteria but to a lesser degree or with lower certainty. Because Alternative 2, 3, 4 and 5 satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

Alternatives 2 through 5 all have short-term impacts; however, Alternative 2 would have the smallest impact. Alternative 3 would have the most significant short-term impacts due to the intrusive activities involved with the excavation and handling of impacted soil. Alternative 4 and 5 would have smaller short-term impacts than Alternative 3 due to the smaller volumes of soil to be excavated. Alternative 5 would have a slightly greater short-term impact than Alternative 4 due to the activities involved with active groundwater treatment (e.g., enhanced MNA). The time needed to achieve the remediation goals would be the longest for Alternative 2 since this alternative relies on only institutional controls and the shortest for Alternative 3 due to the amount of contaminated soil removed.

Long-term effectiveness is best accomplished by those alternatives involving excavation of the contaminated soils (Alternatives 3, 4 and 5). Since contamination is present in the historic fill material as well as deeper soils in the area of the western gas holder and in the area of monitoring well MW-8, Alternative 3 results in removal of all of the chemical contamination at the site and removes the need for property use restrictions and long-term monitoring. Alternatives 4 and 5 would result in the removal of approximately 500 cubic yards of surface/shallow soil, which would remove a majority of the cinder-like material and ash-like material from the site, but they also require an environmental easement and long-term groundwater monitoring. For Alternative 2, site management remains effective, but it will not be desirable in the long term.

Alternative 2 would control potential exposures with institutional controls only and will not reduce the toxicity, mobility or volume of contaminants remaining. Alternative 3 reduces the toxicity, mobility and volume of on-site

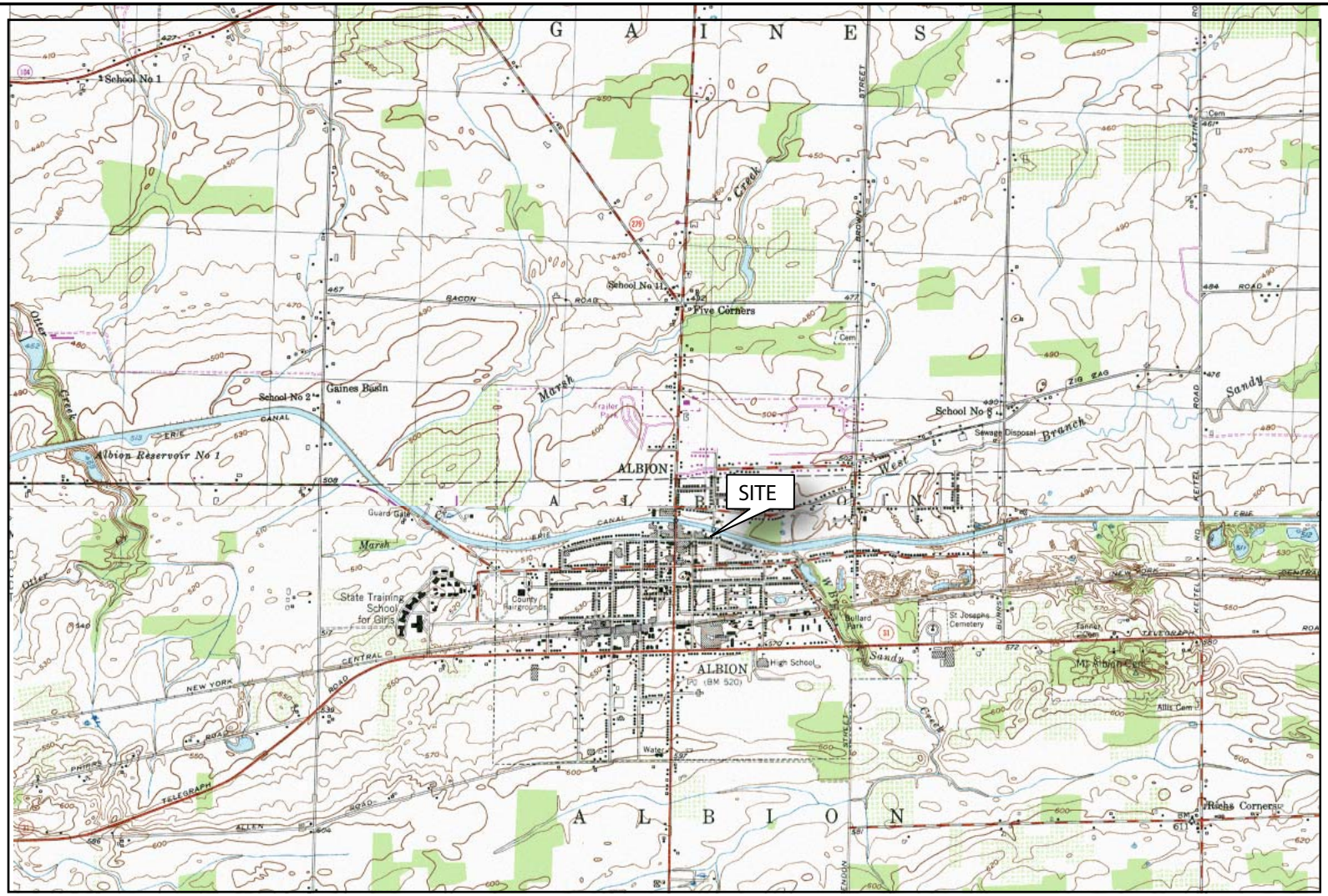
contamination to the greatest extent by transferring all MGP impacted material to an approved off-site location. Alternatives 4 and 5 would also reduce the toxicity, mobility and volume of contamination by removing MGP impacted material to an approved off-site location and as a result of the ongoing natural attenuation processes at the site. Alternative 5 would accelerate these reductions using enhanced natural attenuation techniques.

Alternatives 2, 4 and 5 are favorable in that they are readily implementable. Alternative 3 poses concerns with the implementation of the excavations and off-site disposal. Special excavation procedures (sheet pile installation) will be required for excavating soil at the site boundaries and in the area of deeper excavations near monitoring well MW-8 on the eastern side of the site. Dewatering would also be required since excavations would extend below the water table. Removing the upper 8 to 10 feet of soil would require careful excavation and shoring of the natural gas pipeline that traverses the property and removal and replacement of the on-site storm sewer. There would also be greater truck staging and traffic.

The costs of the alternatives vary significantly. Alternative 2 has a low cost, but the contaminated soil would not be addressed other than by institutional controls and the contaminated groundwater would not be monitored for COCs and natural indicator parameters. Alternative 3 (excavation and off-site disposal) would have the highest present worth cost. Limited soil removal and cover installation with natural attenuation of groundwater contamination (Alternative 4) would be much less expensive than Alternative 3. Alternative 5 (limited soil removal and cover installation with enhanced natural attenuation of groundwater contamination) has a higher cost than Alternative 4 with no significant improvement anticipated with active groundwater treatment.

Alternatives 2, 4 and 5 would be less desirable because at least some contaminated soil would remain on the property whereas Alternative 3 would remove the contaminated soil permanently. However, the remaining contamination with Alternative 4 and Alternative 5 could be readily controlled with implementation of a site management plan. With Alternative 3 restrictions on the site use would not be necessary.

The estimated present worth cost to implement the remedy is $725,000. The cost to construct the remedy is estimated to be $432,000 and the estimated average annual costs for the first five years is $28,000 and for years 6 through 30 is $20,000.



0 1.0 2.0

SCALE
(miles, approximate)

N

SITE LOCATION MAP
Albion Former MGP
Albion, New York

By: MAC	Date: 10/2007	Project No. 7800.004
AMEC Geomatrix	Figure 1	

*View to South

AERIAL VIEW
Albion Former MGP
Albion, New York

By: MAC	Date: 10/2007	Project No. 7800.004
AMEC Geomatrix	Figure 2	

EXPLANATION

MW-3 Monitoring Well with NY-GWQS Exceedances

MW-7 Monitoring well with no NY-GWQS Exceedances

MW-3	12/1999	7/2001
BTEX	ND	ND
Naphthalene	ND	ND
Total Cyanide	*0.475*	NA

Monitoring Well ID
Sampling Date
Concentration in Groundwater (ug/L)
Cyanide Concentration in Groundwater (mg/L)

ND- Compound not detected
NA- Compound not analyzed

0.475 - indicates one or more compounds detected above TOGS 1.1.1 Class GA Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

* bedrock monitoring well

N.Y.S. BARGE CANAL

N77°00'00"W 17.96'

S03°11'25"W 38.49'

N80°24'00"E 36.90'

MW-1	12/1999	7/2001
BTEX	ND	ND
Naphthalene	ND	ND
Total Cyanide	0.059	NA

MW-1

S73°05'00"E 251.00'

RETAINING WALL

MW-7	7/2001
BTEX	ND
Naphthalene	ND
Total Cyanide	NA

MW-7*

S03°11'25"W 16.00'

MW-3

S86°32'35"W 70.00'

MW-5	12/1999	7/2001	6/2005
BTEX	*332*	*324*	*312.3*
Naphthalene	*18*	*55*	2.0J
Total Cyanide	*0.270*	NA	*0.253*

MW-5

MW-3	12/1999	7/2001
BTEX	ND	ND
Naphthalene	ND	ND
Total Cyanide	*0.475*	NA

CONC. PAD

BU

DING

MW-2	12/1999	7/2001
BTEX	ND	ND
Naphthalene	ND	ND
Total Cyanide	0.043	NA

LANDS N/F OF JAMES WOODHAMS (428/212)

(406/99

BUILI

LANI

97)

MW-2

N86°32'35"W 66.80'

LANDS N/F OF DONALD & LAURA RACE ( )97)

S02°52'00"W 181.51'

MW-6

N86°32'35"W

MW-6	12/1999	7/2001	6/2005
BTEX	ND	ND	ND
Naphthalene	ND	ND	ND
Total Cyanide	0.078	NA	0.029

BUILDING

MW-4

MW-4	12/1999	7/2001
BTEX	0.2J	ND
Naphthalene	ND	ND
Total Cyanide	ND	NA

BUILDING

GRAVEL

LANDS N/F OF WENDELL & JOAN SMITH (403/256)

2 STY. MASONARY BUILDING

N86°32'46"W 47.93'

SIDEWALK

Vault

MW-8

MW-8	6/2005	11/2005
BTEX	*4410*	*10,780*
Naphthalene	*5300*	*3000*
Total Cyanide	*0.452*	*0.374*

LANDS N/F OF JERRY & ROXANNE WAGNER (412/406)

SIDEWALK

MW-9

MW-9	11/2005	6/2007
BTEX	ND	Dry
Naphthalene	1.9J	Dry
Total Cyanide	NA	Dry

Control Tower

Ingersol St. Lift Bridge

Bridge Lift-Structure Pit

Pit Sump	11/2005
BTEX	ND
Naphthalene	2.0J
Total Cyanide	*0.473*

FLOW

Manhole

20" diameter Sanitary Sewer (approximate)

MW-10

MW-10	6/2007
BTEX	ND
Naphthalene	ND
Total Cyanide	ND

INGERSOLL STREET

Manhole

20 0 20 40

SCALE (ft. approximate)

EAST BANK STREET

SUMMARY OF MGP INDICATORS IN GROUNDWATER
Albion Former MGP Site
Albion, New York

By: MAC	Date: 11/2007	Project No. 7800.004
AMEC Geomatrix	Figure **3**	

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PAHs Above Commercial SCOs in Surface Soil/ Limited Soil Removal and Soil Cover

Albion Former MGP Site
Albion, New York

EXPLANATION

- SS-2 — S&W Shallow Soil Sample Location
- SB05-4 — Geomatrix Shallow Soil Sample Location
- B-3 — Geomatrix Soil Boring Location
- SB-8 — S&W Soil Boring Location
- MW-4 — Monitoring Well Location
- Former Gas Holder Location
- Approximate Excavation Limits and Soil Cover

SB05-01		
Compound	Concentration (mg/kg) 0 - 2 in.	3.3 - 3.5 ft.
Benzo(a)pyrene	3.5	1.2 J
Dibenzo(a,h)anthracene	0.66 J	--

-- Concentration below Part 375 Restricted Use SCO for Commercial Property
J- laboratory estimated value

- PAHs above Commercial SCOs — Sample Depth
- PAHs above Commercial SCOs
- Overhead Electric/ Telephone
- Buried Gas Line (approximate location)
- 20" dia. Sanitary Sewer
- Utility Pole Location
- Storm Sewer Pipe

N

20 0 20

SCALE (ft. approximate)

SB-11	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	13
Chrysene	12
Benzo(b)fluoranthene	16
Benzo(a)pyrene	16
Indeno(1,2,3-c,d)pyrene	9.5
Dibenzo(a,h)anthracene	3.3 J

SS-3	
Compound	Concentration (mg/kg) 0 - 4 in.
Benzo(a)pyrene	1.7
Dibenzo(a,h)anthracene	0.57

SB-10	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	38
Chrysene	34
Benzo(b)fluoranthene	38
Benzo(a)pyrene	42
Indeno(1,2,3-c,d)pyrene	25
Dibenzo(a,h)anthracene	9.4 J

SB-9	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)pyrene	1.4 J

SB-19	
Compound	Concentration (mg/kg) 0 - 2 ft.
Phenanthrene	1200.0
Fluoranthene	1500.0
Pyrene	1200.0
Benzo(a)anthracene	720.0
Chrysene	600.0
Benzo(b)fluoranthene	440.0
Benzo(k)fluoranthene	590.0
Benzo(a)pyrene	590.0
Indeno(1,2,3-c,d)pyrene	300.0 J
Dibenzo(a,h)anthracene	130.0 J

SB-6	
Compound	Concentration (mg/kg) 4-6 ft.
Benzo(a)pyrene	3.3
Dibenzo(a,h)anthracene	0.99

SB05-01		
Compound	Concentration (mg/kg) 0 - 2 in.	3.3 - 3.5 ft.
Benzo(a)pyrene	3.5	1.2 J
Dibenzo(a,h)anthracene	0.66 J	--

SB-27	
Compound	Concentration (mg/kg) 18 - 24 in.
Phenanthrene	720.0
Fluoranthene	1000.0
Pyrene	990.0
Benzo(a)anthracene	650.0
Chrysene	590.0
Benzo(b)fluoranthene	390.0
Benzo(k)fluoranthene	520.0
Benzo(a)pyrene	510.0
Indeno(1,2,3-c,d)pyrene	300.0
Dibenzo(a,h)anthracene	110.0J

SB-21	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	47.0
Chrysene	46.0
Benzo(b)fluoranthene	59.0
Benzo(k)fluoranthene	54.0
Benzo(a)pyrene	75.0
Indeno(1,2,3-c,d)pyrene	60.0
Dibenzo(a,h)anthracene	21.0

SB-13		
Compound	Concentration (mg/kg) 0 - 2 ft.	4-6 ft.
Benzo(a)anthracene	68	21
Chrysene	56	18
Benzo(b)fluoranthene	45	19
Benzo(a)pyrene	54	22
Indeno(1,2,3-c,d)pyrene	22	10
Dibenzo(a,h)anthracene	9.6 J	4.1

SS-1R, SS-2, SS-4
No compounds above SCOs

CB-1
No compounds above SCOs

SB-20	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	40.0
Chrysene	35.0
Benzo(b)fluoranthene	32.0
Benzo(a)pyrene	34.0
Indeno(1,2,3-c,d)pyrene	13.0
Dibenzo(a,h)anthracene	5.9J

SB05-02		
Compound	Concentration (mg/kg) 0 - 2 in.	2 - 3 ft.
Benzo(a)anthracene	27	--
Benzo(a)pyrene	22	3.9
Benzo(b)fluoranthene	39	--
Chrysene	26	--
Dibenzo(a,h)anthracene	4 J	0.64 J
Indeno(1,2,3-c,d)pyrene	12	--

SB05-03		
Compound	Concentration (mg/kg) 0 - 2 in.	1.3 - 2.5 ft.
Benzo(a)anthracene	--	16
Benzo(a)pyrene	--	13
Benzo(b)fluoranthene	--	17
Chrysene	--	14
Dibenzo(a,h)anthracene	--	1.7 J

SB-15	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)pyrene	5.2
Dibenzo(a,h)anthracene	1.2 J

SB05-6	
Compound	Concentration (mg/kg) 0 - 2 in.
Benzo(a)anthracene	7.6
Benzo(a)pyrene	8.8
Benzo(b)fluoranthene	11.0
Chrysene	6.5
Dibenzo(a,h)anthracene	1.4 J

SB-12	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	48
Chrysene	43
Benzo(b)fluoranthene	53
Benzo(a)pyrene	58
Indeno(1,2,3-c,d)pyrene	36
Dibenzo(a,h)anthracene	17

SB05-05	
Compound	Concentration (mg/kg) 0 - 2 in.
No compounds above SCOs	

SB05-04		
Compound	Concentration (mg/kg) 0 - 2 in.	1.5 - 3 ft.
Benzo(a)pyrene	5.8	2.2
Benzo(b)fluoranthene	7.4	--
Dibenzo(a,h)anthracene	1.6 J	--

SB-26		
Compound	Concentration (mg/kg) 0 - 2 in.	18 - 24 in.
Benzo(a)anthracene	20.0	13.0
Chrysene	19.0	13.0
Benzo(b)fluoranthene	23.0	16.0
Benzo(a)pyrene	25.0	17.0
Indeno(1,2,3-c,d)pyrene	23.0	17.0
Dibenzo(a,h)anthracene	8.2	6.9

SB-25	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(b)fluoranthene	6.4
Benzo(a)pyrene	6.9
Dibenzo(a,h)anthracene	0.93J

SB-23	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	44.0
Chrysene	39.0
Benzo(b)fluoranthene	51.0
Benzo(k)fluoranthene	64.0
Benzo(a)pyrene	64.0
Indeno(1,2,3-cd)pyrene	21.0
Dibenzo(a,h)anthracene	9.5 J

SB-22	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)pyrene	1.1 J

SB-14	
Compound	Concentration (mg/kg) 0 - 2 ft.
Benzo(a)anthracene	56
Chrysene	50
Benzo(b)fluoranthene	49
Benzo(a)pyrene	64
Indeno(1,2,3-c,d)pyrene	68
Dibenzo(a,h)anthracene	23

SB-24		
Compound	Concentration (mg/kg) 0 - 2 in.	18 - 24 in.
Pyrene	--	52.0
Benzo(a)anthracene	13.0	60.0
Chrysene	13.0	55.0
Benzo(b)fluoranthene	16.0	58.0
Benzo(a)pyrene	22.0	68.0
Indeno(1,2,3-c,d)pyrene	9.8	44.0
Dibenzo(a,h)anthracene	3.7J	15.0J

Manhole

By: MAC	Date: 5/2009	Project No. 7800.004
AMEC Geomatrix	Figure 4	

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EXPLANATION

8-12 ft — PAHs detected above Part 375 SCOs

Analytical Sample Collection Depth

B-3 — Geomatrix Soil Boring Location

SB-8 — S&W Soil Boring Location

MW-4 — Monitoring Well Location

Former Gas Holder Location

* PAH exceedance at SB-11 includes Naphthalene. Naphthalene was not detected above Part 375 SCOs at any other location.

SB-1 — **PAHs detected above commercial SCOs**

SUPP-B-2 — **PAHs detected above commercial SCOs**

20 0 20

SCALE (ft. approximate)

MW-7
MW-3
12-14 ft
12-14 ft
10-12 ft
8-8.5 ft
SUPP-B-1
Control Tower
Ingersoll Street Lift Bridge
FLOW
8-12 ft
SB-1
SB-2
SB-7
SB-11*
SB-16
MW-5/SB-5
SUPP-B-2
17.5-18 ft
Bridge Lift-Structure Pit
SUPP-B-3
8-12 ft
SB-10
SB-28
SB-9
SB-18
SB-17
SB-21
SB-4
14-16 ft
Manhole
SUPP-B-6
SB-20
SB-8
SB-13
SUPP-B-5
SB-15
vault
SB-3
SUPP-B-4
MW-8
SB-19
MW-6/SB-6
SB-25
SB-23
SB-27
SB-26
SB-12
SB-14
SB-22
SB-24
S02°52'00"W
181.51'
1 STY. BARN
BUILDING
MW-10
MW-4
LANDS N/F OF WENDELL & JOAN SMITH (403/256)
LANDS N/F OF JERRY & ROXANNE WAGNER (412/406)
2 STY. MASONARY BUILDING
1 1/2 STY. WOOD FRAME
SIDEWAL K
MW-9
INGERSOLL STREET
20" diameter Sanitary Sewer (approximate)
N°
47.93'
SIDEWALK
Manhole

PAHs ABOVE PART 375 SCOs IN SUBSURFACE SOIL
Albion Former MGP Site
Albion, New York

By: MAC	Date: 11/2007	Project No. 7800.004
AMEC Geomatrix	Figure **5**	

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