RECORD OF DECISION

Former Gas Station
Environmental Restoration Project
Port Leyden, Lewis County
Site No. E625012
March 2012

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

DECLARATION STATEMENT - RECORD OF DECISION

Former Gas Station
Environmental Restoration Project
Port Leyden, Lewis County
Site No. E625012
March 2012

Statement of Purpose and Basis

This document presents the remedy for the Former Gas Station site, an environmental restoration site. The remedial program was chosen in accordance with the 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 decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Gas Station site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) oralternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 27, 2012

Date

Robert W. Schick, P.E., Acting Director
Division of Environmental Remediation

RECORD OF DECISION

Former Gas Station
Port Leyden, Lewis County
Site No. E625012
March 2012

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 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 remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Town of Leyden Clerk
Attn: Rosalie White
6606 School Road
Boonville, NY 13309
Phone: (315) 348-4350

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the alternatives analyses (AA) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the propsed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is located at 3514 Mechanic Street on the corner of North and Mechanic Streets in the Village of Port Leyden, approximately 0.1 miles north of the intersection of NYS Route 12 and County Road 39. The property covers 0.66-acres and the tax map number is 353.12-03-09.000.

Site Features: Structures on the site include a wooden storage shed (formerly used for bottle redemption in the 1980s) and a small concrete block structure which has been leased to Frontier Communications, Inc. as a telephone switch station since 1956. The main building at the site was constructed in the 1930s and is a one-story building with 1,148 square feet of interior space. A basement and crawl space are present under portions of this building.

Current Zoning/Use: The property is zoned for commercial use and the neighborhood contains a mixture of light commercial and residential properties. The main building has been remodeled to be used as the Town Court Offices.

Historic Site Uses: Prior to 1900 the site was comprised of two residential parcels. The properties were later combined and a Grange Meeting Hall was built on the site. The property was converted to a service station which offered retail gasoline sales beginning in 1930. This remained the primary use of the property until it was abandoned in 1990.

Site Geology and Hydrogeology: The subsurface includes up to 6 feet of fill which resulted from the abandonment of the former Erie Canal. The fill includes ash, cinders, and debris. The native soils beneath the fill material include silty sands and gravel.

Groundwater is generally found at a depth of 10 feet below the ground surface. The groundwater flow direction is toward the east, away from NYS Route 12. The surface slope directs runoff toward the northeast corner of the site. The regional surface water discharge is the Black River which is located approximately one-quarter mile to the east and flows from south to north.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and 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.

No PRPs have been documented to date.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. The Town of Leyden will assist the state in its efforts by providing all information to the state which identifies PRPs. The Town of Leyden will also not enter into any agreement regarding response costs without the approval of the Department.

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,
- 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,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to 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 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 Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant 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 and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

Petroleum Products

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

IRM: PBS System and Source Soil Removal

Based on the initial results of the RI, it was determined that several generations of Petroleum Bulk Storage (PBS) systems existed at the site. An IRM was conducted in November 2008 to remove the tanks, piping, and pump islands. Accessible contaminated soils were also removed. Post excavation samples were collected to assess the extent of any remaining soil contamination.

Based on the results of the RI and the post excavation sampling, all of the contaminated soil in the 0 to 10 foot depth interval was successfully removed during the IRM. Confirmatory soil samples collected at the water table along the excavation sidewalls adjacent to the building and at a historic tank location northwest of the structure, remain at levels above the unrestricted SCOs. However these soils are considered impacted by the migrating contaminated groundwater and not residual source materials. It is expected these soils will attenuate consistent with the groundwater contamination.

IRM: Installation of the SSDS

As part of the RI, soil and groundwater samples were collected from locations downgradient of the excavation limits and under the existing structure. The results indicated a zone of groundwater contamination, and soil which exceeds unrestricted SCOs, extends under the structure at a depth of 12 to 16 feet. Due to the presence of contamination under the structure, a Sub-Slab Depressurization System (SSDS) was deemed necessary. The SSDS was installed in September 2010 and remains in operation.

6.3: 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.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were petroleum related compounds which were concentrated around the pump islands and original tanks installed in the 1930's. Residual contamination remains at the site in groundwater and the soils at the water table. The majority of the remaining contamination lies underneath the existing building/courthouse. It is expected contaminant levels in this remaining soil contamination will continue to attenuate with time.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

People are not expected to come into direct contact with contaminants in the soil unless they dig below the surface material. People are not drinking contaminated groundwater associated with the site because the area is served by a public water supply that obtains its water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (system that ventilates the air beneath the building) has been installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the building. Sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.5: 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 action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- 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.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here; the Department is proposing No Further Action with continued operation of the SSDS and imposition of an Institutional Control as the proposed remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5. Therefore, the remedy will include:

1. A site cover currently exists and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

2. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires 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);

- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;

- prohibits agriculture or vegetable gardens on the controlled property; and

- requires compliance with the Department approved Site Management Plan.

3. A Site Management Plan is required, which includes the following:

a. 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 ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed above.

Engineering Controls: The site cover described below and the SSDS discussed in Section 6.2.

This Institutional and Engineering Control Plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- 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 engineering controls.

b. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;

- monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed in item a. above.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, 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 four categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), inorganic compounds (metals), and poly-chlorinated biphenyls (PCBs). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 6.1.1 are also presented.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater, soil, and soil vapor.

Wastes are defined in 6 NYCRR Part 375-1.2 and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375. Source areas are areas of concern at a site where 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 which includes the former petroleum storage systems and grossly contaminated soils in the immediate vicinity of the systems.

The petroleum systems included 6 underground tanks, 3 pump islands, and related underground piping. The systems included several generations of petroleum storage installations dating back to the original system from the 1930's. Several of the tanks contained residual fuel and petroleum contaminated water. In all, nearly 1,700 gallons of waste liquid were removed from the systems before removal.

Along with the petroleum storage systems, 450 tons of grossly contaminated soil were removed and disposed at an approved facility so it would not continue to serve as a source of contamination to the groundwater. The limits of the area excavated are depicted on Figure 2. The excavation reached a maximum depth of 18 feet in some locations; however most areas were excavated to a depth of 10 to 13 feet.

Following the removal action, samples were collected to assess the residual contamination that could not be removed due to the proximity of the road, underground utilities, or buildings. Groundwater monitoring wells were also installed to assess the groundwater conditions and to gauge the effectiveness of the IRM at reducing the residual contamination over time.

The results of the post excavation sampling and groundwater monitoring are discussed in further detail in the following sections along with the data collected to characterize the rest of the site.

The waste/source areas identified at the site were addressed by the IRM described in Section 6.2.

Groundwater

In January 2009, three months after the IRM described in Section 6.2 was completed, groundwater samples were collected from temporary wells. The results of the groundwater data collected are summarized in Table 1. Benzene was detected in one downgradient well at 1.2 ppb, or 0.2 ppb above the regulatory limit.

With the exception of the lone benzene detection listed above, only two of the six monitoring locations exhibited concentrations which exceeded the applicable standards for VOCs and SVOCs. These groundwater monitoring locations were within 5 feet and 12 feet of the IRM excavation limits. On Figure 2 these locations are labeled as GPW-05 and GPW-06.

The following summer, in August of 2009, three permanent monitoring wells were installed. The wells were assessed for VOCs, SVOCs, metals, and PCBs. There were no exceedances of SCGs for SVOCs or PCBs.

Petroleum related compounds were not found in the water samples from the three permanent wells. The only VOC detections were carbon tetrachloride and 1, 2-dichloroethane at concentrations slightly above the groundwater standards. These contaminants appear to be from handling the samples in the field or at the laboratory and not representative of the groundwater at the site. Both of these compounds were found in the trip blank sample analysis at similar concentrations. The trip blank sample should be free of contamination unless contamination is introduced with the handling or analysis of the samples.

Two metals (iron and sodium) were found to exceed their SCGs in the permanent monitoring well installed upgradient of the site. These metals are naturally occurring and are not associated with waste disposal at the site.

Table 1 – Groundwater Quality Data – Post IRM

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
Benzene	ND to 1300	1	3 of 9
Toluene	ND to 6,600	5	2 of 9
Ethylbenzene	ND to 3,400	5	2 of 9
Xylene (total)	ND to 16,000	5	2 of 9
Isopropyl benzene	ND to 130	5	2 of 9
n-propylbenzene	ND to 220	5	2 of 9
1,3,5 trimethylbenzene	ND to 570	5	2 of 9
1,2,4 trimethylbenzene	ND to 2,300	5	2 of 9
sec-butylbenzene	ND to 13	5	2 of 9
n-butylbenzene	ND to 43	5	2 of 9
SVOCs			
Naphthalene	ND to 560	10	2 of 9
Phenol	ND to 12	1	2 of 9
2-methylphenol	ND to 11	1	2 of 9
4-methylphenol	ND to 52	1	2 of 9
2,4-dimethylphenol	ND to 23	1	2 of 9

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
Metals			
Iron[e]	ND to 4,610	300	1 of 3
Sodium[e]	3,690 to 119,000	20,000	1 of 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 community is served by a municipal drinking water supply; therefore groundwater is not used as a drinking water source in the vicinity of this site. The residual contaminated groundwater has naturally attenuated since the source of the contamination was removed and further attenuation to groundwater standards is expected.

Groundwater contamination identified during the RI was addressed during the IRM described in Section 6.2.

Soil

The soil at the site was assessed for contamination from the surface to a maximum depth of approximately 30 feet. Soil samples collected to characterize the surface soils were obtained from a depth of zero to twelve inches, while subsurface soils were collected from depths greater than one foot. The shallow samples were analyzed to determine if there is a direct exposure to human health from contaminants which may be present at or near the surface. Subsurface samples were collected prior to the IRM with test pits; during the IRM as post-excavation sampling; and following the IRM with soil borings and soil collected from the borings which were completed as groundwater monitoring wells. However, only those samples which characterize the soil that remains post-IRM are included in the data summaries provided below.

Surface Soil

The results of the surface soil sampling are summarized below on Table 2.1. Specific sample locations are shown on Figure 2. The surface soils were not shown to exceed the soil cleanup objectives.

Table 2.1 – Surface Soil – Commercial Use SCOs

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCO[b] (ppm)	Frequency Exceeding Unrestricted SCO[b] (ppm)	Commercial Use SCO[c] (ppm)	Frequency Exceeding Commercial SCO[c] (ppm)
VOCs					
Acetone	ND to 0.0571	0.05	1 of 4	500	0 of 4
Inorganics					
Lead	23 to 328	63	1 of 4	500	0 of 4
Pesticides/PCBs					
4,4'-DDD	ND to 0.00893	0.0033	3 of 4	92	0 of 4
4,4'-DDE	ND to 0.00401	0.0033	1 of 4	62	0 of 4
4,4-DDT	ND to 0.00980	0.0033	3 of 4	47	0 of 4
Aroclor 1260	ND to 0.0164J	0.1	0 of 4	1	0 of 4

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCO: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCO: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

Subsurface Soil

The results of the subsurface soil sampling are summarized below on Table 2.2. Specific sample locations are shown on Figure 2. Figure 2 also depicts the foot print of the soil which exceeds unrestricted SCOs. The residual soil contamination is limited to the 10-16 foot interval beneath the site, consistent with the seasonal fluctuations of the groundwater surface elevations.

Table 2.2 – Subsurface Soil –Commercial Use SCOs

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCO[b] (ppm)	Frequency Exceeding Unrestricted SCO[b] (ppm)	Commercial SCO[c] (ppm)	Frequency Exceeding Commercial SCO[c] (ppm)
VOCs					
Acetone	ND to 0.056	0.050	1 of 31	500	0 of 31
Benzene	ND to 0.073	0.060	1 of 31	44	0 of 31
Toluene	ND to 0.810	0.700	1 of 31	500	0 of 31
Ethylbenzene	ND to 32	1	7 of 31	390	0 of 31
Xylene	ND to 210	0.260	10 of 31	500	0 of 31
n-propylbenzene	ND to 22	3.9	4 of 31	500	0 of 31
1,3,5-trimethylbenzene	ND to 51	8.4	5 of 31	190	0 of 31
1,2,4 trimethylbenzene	ND to 150	3.6	7 of 31	190	0 of 31
SVOCs					
Naphthalene	ND to 16	12	2 of 31	500	0 of 31
Chrysene	ND to 1.1	1	1 of 31	56	0 of 31
Benzo(b) fluoranthene	ND to 1.2	1	1 of 31	5.6	0 of 31
Inorganics					
Lead	2 to 167	63	3 of 25	1,000	0 of 25
Silver	1.3 to 3.7	2	6 of 10	1,500	0 of 10
Zinc	14.6 to 116	109	1 of 10	10,000	0 of 10

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCO: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCO: Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

All subsurface soil samples met the commercial use SCOs, and the only sample locations with significant exceedances of the unrestricted SCOs were from the bottom of the excavation for Tank 002 (sample location TC-12 on Figure 2) and the soil beneath the waterline near Tank 007 (sample location TC-07 on Figure 2) which could not be removed. Both represent small volumes of soil. Also, soil contamination was found from 12 to 16 feet below the floor of the structure at GPW-06 shown on Figure 2. This soil exceeded the unrestricted SCOs, but did not exceed the residential SCOs.

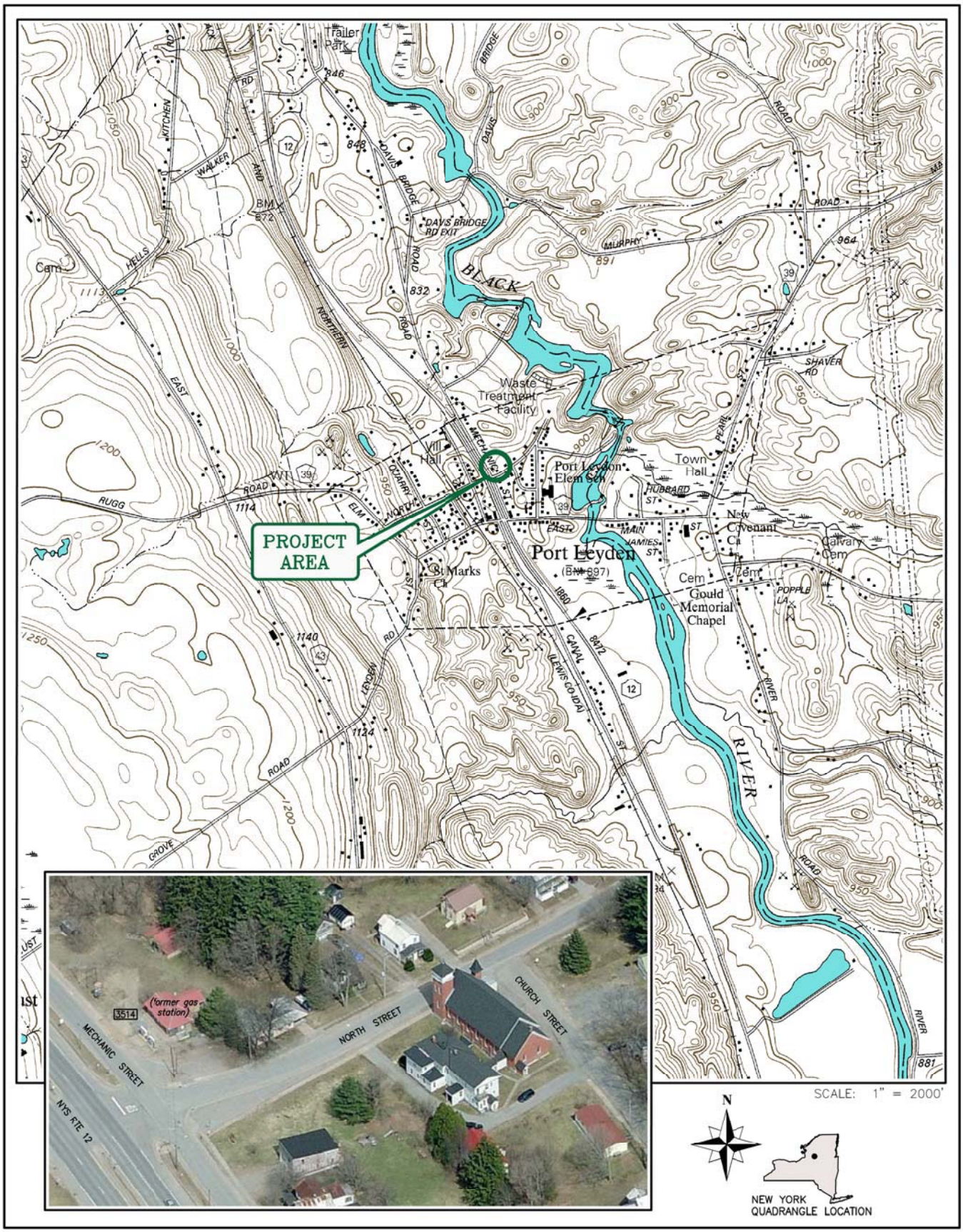
The residual soil contamination remaining at 10-16 feet below the site is expected to attenuate and naturally degrade along with the groundwater at this depth since the sources of contamination have been removed from the site.

Soil contamination identified during the RI was addressed during the IRM described in Section 6.2.

Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of indoor air from a residence on North Street. Analysis included a full suite of parameters which were collected to evaluate whether soil vapor intrusion was occurring. Three samples were collected: one from beneath the basement floor, one from the ambient indoor air, and one from the ambient outdoor air. Compounds detected in the sub-slab soil vapor sample were generally lower than the results of the sample collected from the basement indoor air therefore, site related contamination is not expected to affect the indoor air. Results of the basement indoor air sample indicate concentrations generally within the background range typically found in homes with a fuel oil tank inside and do not indicate a soil vapor intrusion exposure concern. No off-site impacts to soil vapor exist.

The Town currently uses the existing on-site structure as a municipal court house. Based on the remaining contamination discussed above, under the headings “Groundwater” and “Subsurface Soil”, approval to reuse the existing building was conditioned on the installation and operation of a SSDS. The Village has installed and is currently operating the system. The potential for soil vapor contamination is limited to on-site structures. This has been addressed by the installation of the SSDS as an IRM.



Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

FIGURE 1. SITE LOCATION MAP

PORT LEYDEN BROWNFIELD REMEDIAL INVESTIGATION
FORMER GAS STATION ERP SITE #E625012
3514 MECHANIC STREET
PORT LEYDEN | LEWIS COUNTY | NEW YORK

P.N. 50002

DATE:	AUGUST 2010
SCALE:	1:24,000
DRAWN BY:	DLS

MAP SOURCE: NYS DOT RASTER QUADRANGLE: PORT LEYDEN / NEW YORK, LEWIS COUNTY. DOT EDITION DATE: 1969 / USGS CONTOUR DATE: 1966. 2009 MICROSOFT CORPORATION, 2009 NAVTEQ AND 2009 PICTOMETRY INTERNATIONAL CORP.

J:\Projects\39000 Leyden\39002 Remedial Invest\Cadd\RI_Report\1_LocationMap.dwg, 12/27/2010 1:17:36 PM, diane, AC2008

J:\Projects\39000 Leyden\39002 Remedial Invest\Cad\RI_Report\2_Sample Location Plan.dwg, 8/25/2011 9:56:41 AM, dlane, AC2008

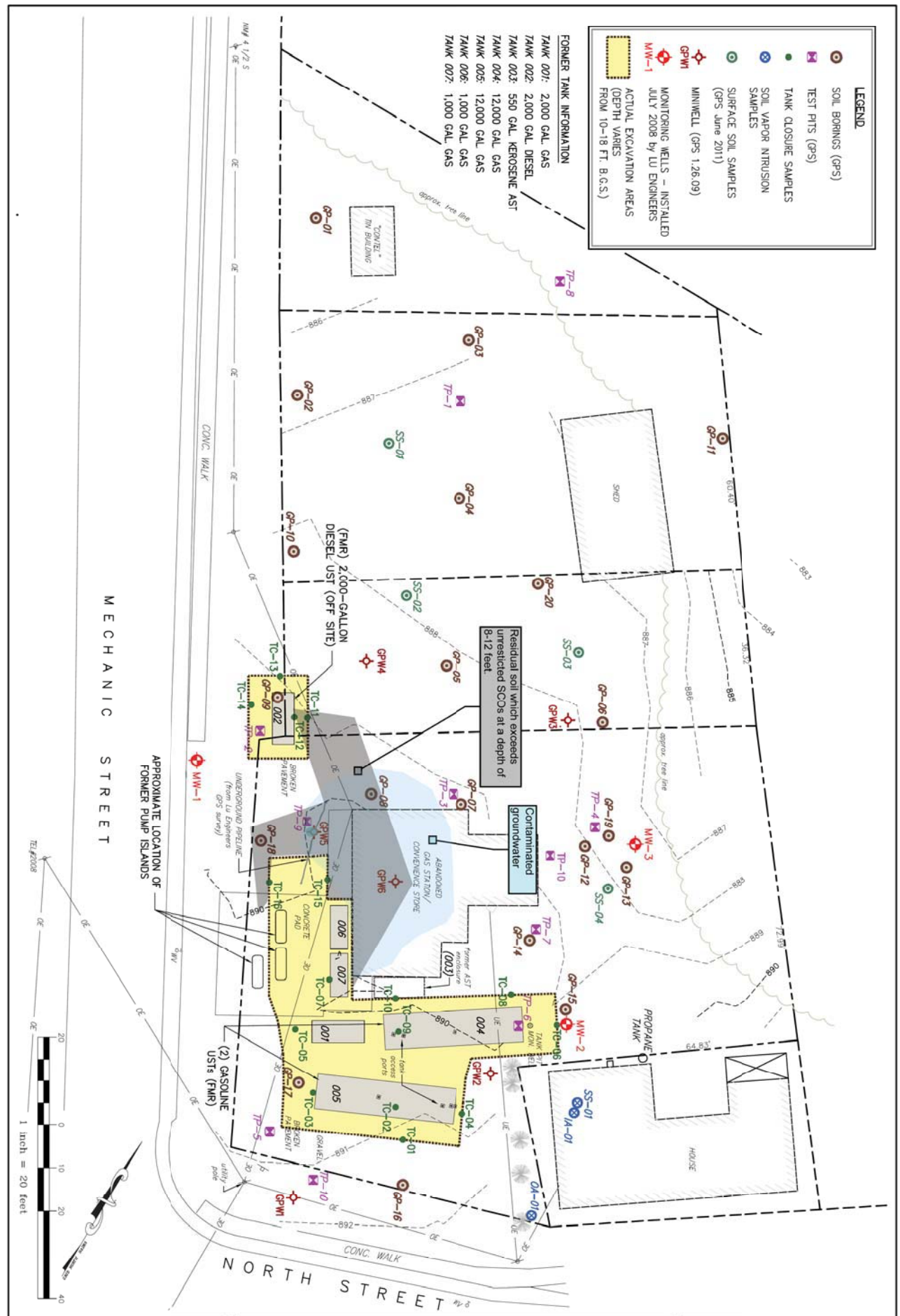


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FIGURE 2. SAMPLE LOCATION PLAN
TOWN OF LEYDEN ERP INVESTIGATION

3514 MECHANIC STREET
(FORMER GAS STATION)
PORT LEYDEN, NEW YORK

DATE:	MAY 2010
DESIGNED BY:	LMS
DRAWN BY:	DLS
MAP SOURCE:	LEAVE, WHITE & McGIVERN, L.S., P.C. SURVEY MAP LANDS OF TOWN OF LEYDEN, VILLAGE OF PORT LEYDEN, LEWIS COUNTY, NY, OCTOBER 2006

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Former Gas Station
Environmental Restoration Project
Town of Leyden, Lewis County, New York
Site No. E625012

The Proposed Remedial Action Plan (PRAP) for the Former Gas Station Site, was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 7, 2012. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the Former Gas Station Site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 6, 2012, which included a presentation of the remedial investigation alternative analysis (RI/AA) for the Former Gas Station as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 23, 2012.

This Responsiveness Summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Will the remaining soil and groundwater contamination remain forever at the site?

RESPONSE 1: Now that the source of petroleum contamination (leaking tanks, piping, and grossly contaminated soils) has been removed, the remaining concentrations are expected to attenuate (i.e., reduce with time). The Site Management Plan will include a groundwater monitoring program which will monitor the attenuation progress.

COMMENT 2: How long will the remaining contamination take to attenuate?

RESPONSE 2: Sites subject to petroleum remediation generally show significant improvement in the first or second year following the source removal action. Restoration to pre-release conditions, without additional remedial actions, would take longer.

COMMENT 3: How long will the groundwater monitoring be required? Decades?

RESPONSE 3: The Site Management Plan should include an exit strategy for both the sub-slab depressurization system and the groundwater monitoring program. The exit strategy will define the conditions that when achieved, will allow the monitoring to be terminated. At this time it is difficult to predict exactly how long the monitoring will need to continue. Monitoring requirements are

usually suspended before pre-release conditions are met, provided decreasing trends are established and no threats of exposure exist.

COMMENT 4: Will the Town be reimbursed for these additional costs?

RESPONSE 4: The Town is eligible for reimbursement of costs associated with implementation of the investigation and the interim remedial measures. However, site management activities are not eligible for reimbursement.

COMMENT 5: How much will the additional testing cost?

RESPONSE 5: The consultant will need to prepare a scope of work for the site management activities (e.g., groundwater monitoring) which will include a cost estimate. Once this information has been provided, it will be available for review at the Town Clerk's Office and the NYSDEC Office in Watertown.

COMMENT 6: How much is left in the State Assistance Contract and when does it expire?

RESPONSE 6: There is currently just over $17,000 left in the existing State Assistance Contract (SAC). The SAC expired on December 31, 2011. The Department has not received the final reimbursement request for the costs incurred between July 31, 2011 and December 31, 2011. The SAC term will be extended to accommodate this outstanding payment request as well as any other outstanding costs (e.g., those associated with development of the Site Management Plan and Final Engineering Report). It is expected that the available balance will be depleted, once the final reimbursement request is processed.

COMMENT 7: Is more money available for a SAC Amendment?

RESPONSE 7: While available Environmental Restoration Program (ERP) funds are limited, if the Town has expended more than the SAC balance, a request for those funds should be made as soon as possible. A nominal increase to the SAC is possible.

COMMENT 8: Why can't the project be closed now? Why is the project taking so long?

RESPONSE 8: Soil and groundwater contamination beneath the building were inaccessible when the IRM was completed. While this remaining contamination does not warrant additional remedial efforts, it does require monitoring to assure the levels are decreasing and do not pose a threat. These site management activities will not forestall issuance of the Certificate of Completion, which is expected to be issued later this year.

COMMENT 9: The contamination has been there for many years, and hasn't caused a significant impact, so after all this work, why would you expect it to get worse now?

RESPONSE 9: There is no expectation that site conditions would worsen. The remedial program has greatly improved site conditions and residual levels of contamination are expected to attenuate. The monitoring program will serve to document that process.

COMMENT 10: When will you know how much this will cost and how much, if any, the SAC amendment can provide?

RESPONSE 10: As discussed in Response 4, site management activities are not reimbursable under the ERP. As soon as the Town's consultant can provide a proposed scope of work and estimate for these activities, it should be available for review. To the extent the Town incurred costs for the Remedial Investigation, Interim Remedial Measures, Site Management Plan and/or Final Engineering Report, which exceed the current SAC value, the Town may submit a request for a SAC Amendment. Also see Response 7.

APPENDIX B

Administrative Record

Administrative Record

Former Gas Station
Environmental Restoration Project
Town of Leyden, Lewis County, New York
Site No. E625012

1. Proposed Remedial Action Plan for the Former Gas Station site, dated February, 2012, prepared by the Department.

2. The Department and the Town of Leyden entered into a State Assistance Contract, Contract No. C303361, dated December 28, 2006.

3. Final Engineering Report, including Remedial Investigation and Interim Remedial Measures, dated August 2011.