PROPOSED REMEDIAL ACTION PLAN

Rolling Plains Development
State Superfund Project
Honeoye Falls, Monroe County
Site No. 828138
February 2020

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 wastes 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.

Based on the implementation of the IRM(s), the findings of the RI 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 proposed by this Proposed Remedial Action Plan (PRAP). A No Further Action remedy may include site management, which will include continued operation of any remedial system 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 proposed remedy for the site. This PRAP identifies the IRM(s) conducted and discusses the basis for No Further Action.

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 in the document repository identified below.

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 repository:

New York State Department of Environmental Conservation
Region 8 Office
6274 East Avon-Lima Road
Avon, NY 14414
Phone: 585-226-2466

A public comment period has been set from:

2/27/2020 to 3/27/2020

A public meeting is scheduled for the following date:

3/19/2020 at 6:30 PM

Public meeting location:

NYSDEC, Region 8 Office, 6274 East Avon-Lima Road, Avon, NY 14414

At the meeting, the findings of the remedial investigation (RI) 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 3/27/2020 to:

Matthew Dunham
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
matthew.dunham@dec.ny.gov

The Department may modify the proposed remedy presented in this PRAP based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. 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.

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 Rolling Plains Development Site is a six-acre property located in a rural portion of Monroe County in the Town of Mendon. The site, located approximately 500 feet from the southwest end of Old French Road, includes future building lots 35 (tax parcel 221.01-2-90), 36 (tax parcel 221.01-2-83), 37 (tax parcel 221.01-2-82) and part of the future extension of Old French Road.

Site Features: The site is situated within the undeveloped, final phase of a residential development. The main site feature is the former drum burial pit that was unearthed during the construction of a road extension in support of new residential construction. The site is bordered on three sides by homes with the closest home 300 feet from the site. The majority of the residences near the site are served by a municipal water supply, approximately three residences to the west and north are on private wells.

Current Zoning/and Land Use(s): The site is zoned for residential use and is currently vacant.

Past Use of the Site: During the 1960s until the mid-1970s, the property was operated as a sand and gravel pit. Review of historic aerial photographs indicates that prior to the operation of the gravel pit, the property was open farmland.

Site Geology and Hydrogeology: Overburden soils at the site are approximately 132 to 168 feet thick and consist primarily of brown sands, silts, and gravels. Bedrock consists of the Upper Silurian Akron Dolostone unit of the Bertie Formation. Groundwater in the upper aquifer at the site is interpreted to flow predominantly toward the northwest in the direction of the wetland located approximately 600 feet northwest of the former drum disposal area. The flow direction of groundwater in the bedrock aquifer at the site is interpreted to flow predominantly toward the north. Depth to groundwater within the overburden at the site is approximately 27 to 32 feet below ground surface.

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 restricted-residential use (commercial use and industrial use) as described in Part 375-1.8(g) is/are being 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.

The PRPs for the site, documented to date, include:

Unisys Corporation

Hanson Aggregates New York LLC

An Administrative Order (Index No. CERCLA-02-2008-2028) was issued to the Unisys Corporation by the United States Environmental Protection Agency (EPA) on September 30, 2008.

An Administrative Settlement Agreement and Order on Consent (Index No. CERCLA-02-2008-2027) was issued to Hanson Aggregates New York, LLC (Hanson) by the United States Environmental Protection Agency (EPA) on September 30, 2008.

The Department and Hanson Aggregates New York, LLC entered into a Consent Order (Index No. B8-0726-06-08) on June 12, 2013. The Order obligates the responsible party to implement a full remedial program. After the remedy is selected, the Department will approach the PRPs to implement the selected remedy. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred.

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:

- air
- groundwater
- drinking water
- soil
- soil vapor
- indoor air
- sub-slab vapor

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 SCGs 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 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 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:

Trichloroethene (TCE)	Acetone
1,1,1-Trichloroethane	Toluene
Lead	Benzene
cis-1,2-Dichloroethene	1,1-Dichloroethane

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 Final Removal Action 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.

Drum Removal

On May 3, 2005, the property owner/developer, informed the Department of the discovery of eight abandoned drums during the construction of a roadway for the property development. Based on an investigation performed by the Department's Bureau of Environmental Crimes Investigations, the drums were placed in the ground when the property was used as an active gravel pit. Based on these findings, the property owner conducted a drum removal action and initiated a site investigation.

Under the oversight of the Department, 103 buried 55-gallon drums and other containers were ultimately discovered. These were excavated and placed in six roll-off containers, pending off-site disposal. During the removal action, a magnetometer survey was performed to search for additional drums, and subsequent test-pitting was performed to investigate any magnetometer survey anomalies. The 103 drums contained paint waste, solvents, rags, ink, oily liquids, and metal shavings.

On June 13, 2005, the Department requested the assistance of the United States Environmental Protection Agency (EPA) for removal of the six roll-off boxes containing the unearthed drums, debris, and contaminated soil. The roll-off boxes were subsequently removed by Unisys Corporation under a federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) unilateral administrative order. At the completion of the IRM, the EPA prepared a Pollution Report, dated September 15, 2006.

Soil Removal

Between December 2008 and March 2009, lead-impacted soil was removed, by Hanson, to address contamination within and around the former drum disposal area (Figure 2). The former drum disposal area covers an area of approximately 2,800 square feet within an approximately 23-acre vacant field that forms an undeveloped portion of the development. Concentrations of lead found on-site (2,900 parts per million, or ppm) exceeded the soil cleanup objective (SCO) for unrestricted use (63 ppm). The soil removal resulted in the excavation and off-site disposal of approximately 640 tons of lead-containing soil at concentrations exceeding soil cleanup objectives (SCOs) for residential use (400 ppm). The endpoint soil sampling showed concentrations of lead found in the former drum pit at levels, up to 390 parts per million (ppm), below the soil cleanup objectives for residential use (400 ppm). At the completion of the IRM, a Final Removal Action Report, dated January 2012, was prepared.

Soil Vapor Extraction

Between March 2009 and March 2011, a soil vapor extraction (SVE) system was installed by Hanson Aggregates, and operated to remediate the soils containing volatile organic compounds (VOCs) [1,1,1 TCA at 1.1 ppm and cis-1,2 DCE at 2.1 ppm] within the unsaturated zone in and around the former drum disposal area. To determine the effectiveness of the system, in March and September 2009, soil samples were collected from test borings. Based on the results of these sampling events, the SVE system continued to be operated. In May 2011, after two additional years of operation, soil samples were collected from additional borings. The results indicated that the soil cleanup objectives for VOCs had been achieved. Specifically, all soil samples were below the unrestricted use SCOs for VOCs. Therefore, operation of the SVE system was terminated in June 2011 and the SVE equipment was removed. At the completion of the IRM, a Final Removal Action Report, dated January 2012, was prepared.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing 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.

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern are trichloroethene (TCE) and its associated degradation products, 1,1,1-Trichloroethane (1,1,1 TCA) and its associated degradation products and lead.

Soil (Post IRMs) - Confirmatory, post-excavation and post-SVE soil samples were compared to the applicable Soil Cleanup Objectives (SCOs) for unrestricted and restricted residential use. Concentrations of TCE were found on-site at levels up to 0.0027 parts per million (ppm), significantly below the soil cleanup objectives for unrestricted use (0.47 ppm). Concentrations of 1,1,1 TCA were found on-site at levels up to 0.0024 ppm, significantly below the soil cleanup objectives for unrestricted use (0.68 ppm). Concentrations of lead were found in the former drum pit at levels up to 390 ppm, below the soil cleanup objectives for residential use (400 ppm). Concentrations of lead found outside the former drum pit at levels, up to 26.2 ppm, were below the soil cleanup objectives for unrestricted use (63 ppm).

Groundwater (Post IRMs) - TCE is found in shallow and deep groundwater on-site, at levels exceeding the groundwater standard of 5 parts per billion (ppb), with a maximum concentration of 21 ppb in the shallow groundwater. Concentrations of 1,1,1 TCA found on-site exceed the groundwater standard of 5 ppb, with a maximum concentration of 9 ppb in the shallow groundwater. Concentrations of cis-1,2-dichloroethene found on-site exceed the groundwater standard of 5 ppb, with a maximum concentration of 37 ppb in the deep groundwater.

Concentrations of 1,1-dichloroethane found on-site exceed the groundwater standard of 5 ppb, with a maximum concentration of 10 ppb in the deep groundwater. Low levels of site-related contaminants are migrating off-site in both the shallow and deep groundwater as evidenced by the results of private well sampling discussed below.

Sub-slab Vapor and Indoor Air (Post IRMs) - To determine whether actions are needed to address exposure related to soil vapor intrusion, sub-slab vapor, indoor air, and outdoor air samples were collected at three off-site properties in 2013. TCE and the other site-related contaminants were not detected in indoor air or sub-slab soil vapor samples of any of the off-site properties. Based on the results of this sampling and of environmental sampling in the area, no further action is necessary to address soil vapor intrusion in the three off-site properties sampled.

Private Wells (Post IRMs) - Samples collected at homes near the site contained detectable levels of site-related compounds, but below NYS drinking water standards. Monitoring of private wells will continue to ensure that additional actions are not needed in the future.

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*.

Private well water samples collected at homes near the site show levels of site related compounds below NYS drinking water standards. Continued sampling of these homes is needed to monitor these levels. Volatile organic compounds in soil vapor (air spaces within the soil) may move into overlying buildings and affect 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. Environmental sampling indicates soil vapor is contaminated onsite and actions have been recommended to address the potential for soil vapor intrusion to occur in future onsite structures. A soil vapor intrusion evaluation is recommended for any new structures developed in off-site areas of contamination.

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.
- 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.

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 PROPOSED REMEDY

Based on the results of the investigations at the site, and the IRMs that have been performed the Department is proposing No Further Action with Site Management as the 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.

The elements of the IRM already completed are listed below:

1. Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from groundwater.

3. 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 controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use 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; and
- requires compliance with the Department approved Site Management Plan.

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

a. an Institutional Control Plan that identifies all use restrictions for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and effective:

Institutional Controls:
The Environmental Easement discussed above.

This 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 groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed in areas of site-related contamination on-site and off-site, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of on-site groundwater to assess the performance and effectiveness of the remedy;
- monitoring of off-site private wells to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings developed in areas of site-related contamination off-site, as may be required by the Institutional and Control Plan discussed 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 for which contamination was identified, 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 volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). 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 4 and Section 6.1.1 are also presented.

Waste/Source Areas

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

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.

In 2005, as part of an IRM, 103 buried 55-gallon drums and other containers were excavated and placed in roll-off containers for off-site disposal. Between December 2008 and March 2009, a soil-removal was completed to address lead and volatile organic compound-impacted soils within the former drum disposal area. Once the soil removal was completed, a soil vapor extraction (SVE) system was installed and operated to remediate the soils containing volatile organic compounds (VOCs) within the unsaturated zone, in the former drum disposal area. As a result of the soil removal and operation of the SVE system, a significant portion of the waste/source area identified at the site has been removed. Therefore, no remedial alternatives will be evaluated to address the waste/source area.

The waste/source areas identified at the site were addressed by the IRM(s) described above and in Section 6.2.

Groundwater

Samples were collected from overburden groundwater and the bedrock groundwater. Overburden groundwater was encountered at 27 to 32 feet below ground surface (bgs) and bedrock was encountered at 160 feet bgs. The samples were collected to assess the groundwater conditions on-site in the vicinity of the former drum disposal area. The groundwater samples were submitted for analytical analysis for VOCs

The post IRM on-site groundwater sampling results indicate groundwater standards are slightly exceeded for 1,1,1-Trichloroethane (1,1,1 TCA), 1,1 Dichloroethane (1,1 DCA), cis-1,2-Dichloroethene (cis-1,2-DCE), Trichloroethene (TCE), Benzene, Acetone and Toluene. Private well water samples collected at homes near the site show levels of site-related compounds below NYS drinking water standards. Removal of the source material is expected to allow groundwater standards to be met.

Table #1 - Groundwater – Post IRM

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
1,1,1 TCA	ND - 9.0	5.0	3/13
1,1 DCA	ND – 10.0	5.0	1/13
Acetone	ND	50.0	0/13
Toluene	ND – 0.62	5.0	0/13
Benzene	ND - 8.1	1.0	2/13
cis-1,2 DCE	ND – 37.0	5.0	1/13
TCE	ND – 21.0	5.0	4/13

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).

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

Soil

Confirmatory, post excavation and post SVE soil samples were compared to the applicable Soil Cleanup Objectives (SCOs) for unrestricted use and restricted use/restricted - residential, as discussed in Section 4, and indicate that the primary contaminants of concern on-site are lead and VOCs. Concentrations of lead found in the former drum pit at levels, up to 390 parts per million (ppm), below the soil cleanup objectives for residential use (400 ppm). Concentrations of lead found outside the former drum pit at levels, up to 26.2 parts per million (ppm), below the soil cleanup objectives for unrestricted use (63 ppm). Based on the comparison of the soil sampling results to the restricted use SCOs were selected for the evaluation of the data.

Table #2 – Soil - Post IRM

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG
VOCs					
1,1,1 TCA	ND - .0024	0.68	0/14	100	0/14
TCE	ND – .0027	0.47	0/14	21	0/14
Inorganics					
Lead	9.6 - 390	63	9/25	400	0/25

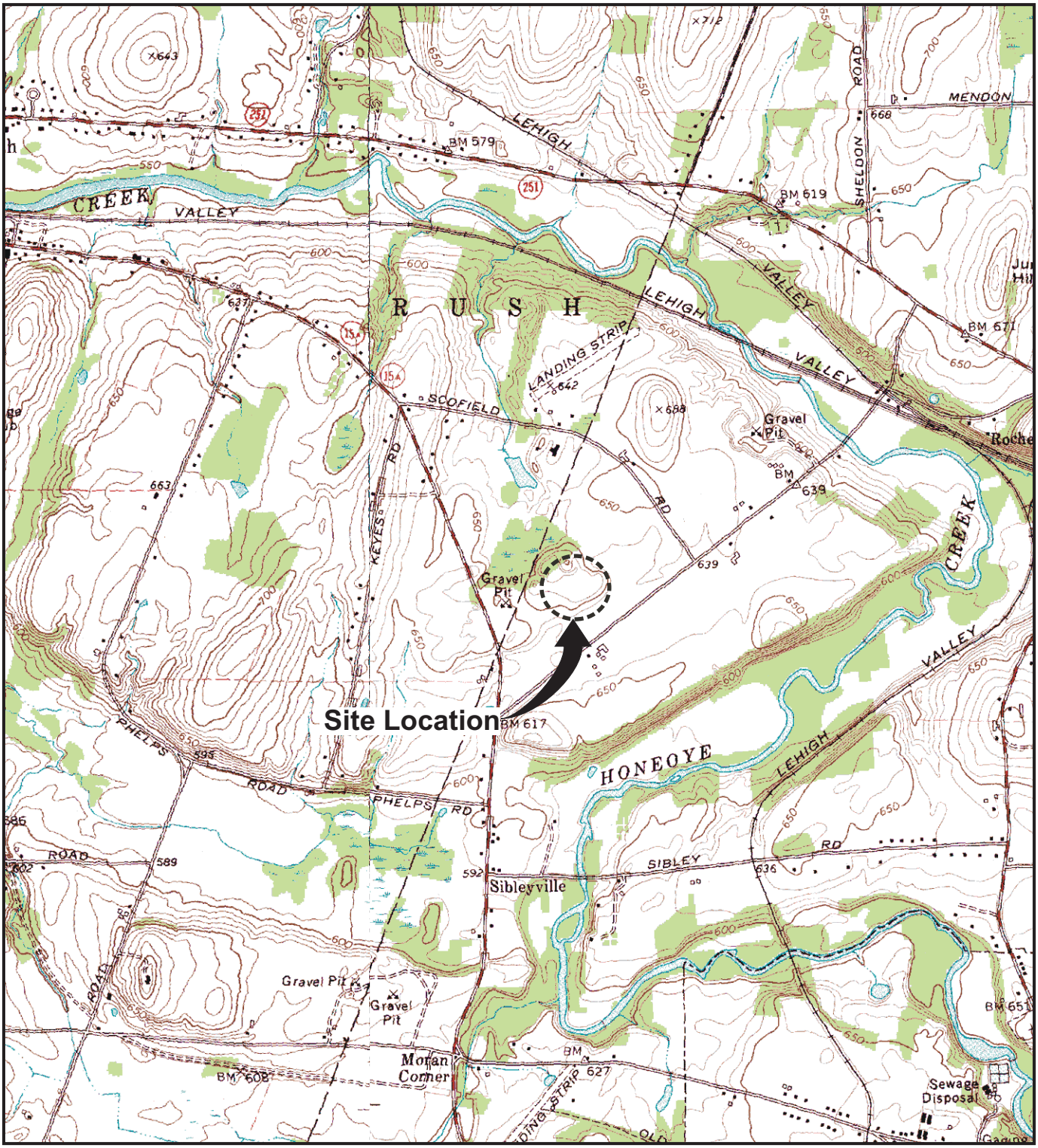
a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Restricted-Residential Use, unless otherwise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

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

Soil Vapor

To determine whether actions were needed to address exposure related to soil vapor six temporary soil vapor sampling points were installed in 2013. Each soil vapor point was installed at a depth approximately one to two feet above the groundwater table. Concentrations of benzene in the soil vapor samples ranged from 3.5 µg/m3 to 290 µg/m3. Concentrations of TCE ranged from non-detectable at 3 locations up to 270 µg/m3 at SV-101. Ethylbenzene concentrations ranged from non-detectable at 2 locations up to 55 µg/m3 at SV-106.

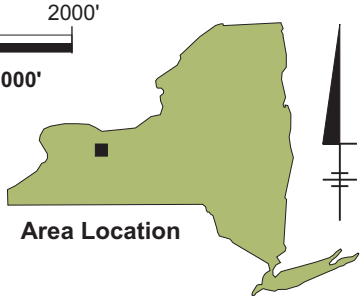
In addition, to determine whether actions were needed to address exposure related to soil vapor intrusion, sub-slab vapor, indoor air, and outdoor air samples were collected at three off-site properties in 2013. Based on the results of this sampling and of environmental sampling in the area, no further action is necessary in the three off-site properties. The remedy includes a provision for evaluation of the potential for soil vapor intrusion in the future for any buildings developed in areas of site-related contamination on-site and off-site, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion.



REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., HONEOYE FALLS AND RUSH, N.Y., 1971, PHOTOINSPECTED 1976.

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

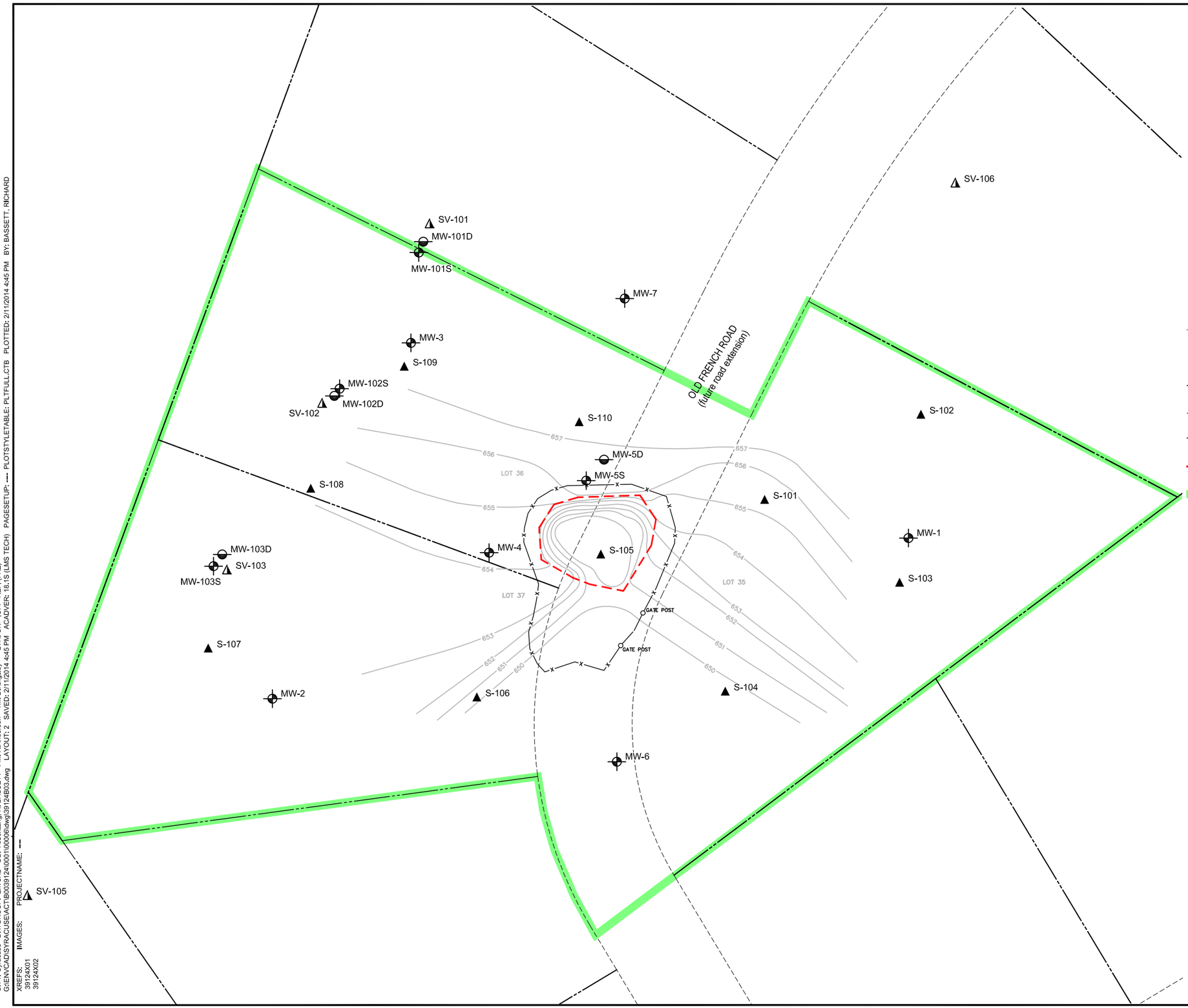
HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK
REMEDIAL INVESTIGATION REPORT

SITE LOCATION MAP

ARCADIS

FIGURE
1

07/17/2012 SYRACUSE, NY-141-DJHOWES
B0039124/0001/00006/CDR/39124N01.CDR



LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- SOIL VAPOR SAMPLING POINT LOCATION
- SOIL SAMPLING LOCATION
- APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT–OF–WAY LINE
- FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY

NOTE:

1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. FENCE AND PROPOSED SOIL VAPOR AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.

0 60' 120'

GRAPHIC SCALE

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK
REMEDIAL INVESTIGATION REPORT

SITE PLAN

ARCADIS

FIGURE
2

CITY: Syracuse DIV/GROUP: EnvCAD DB: A.Schilling, R. BASSETT PM: R.Anderson TM: D.Kingsley LYR: ON=*;OFF=REF; (FRZ)
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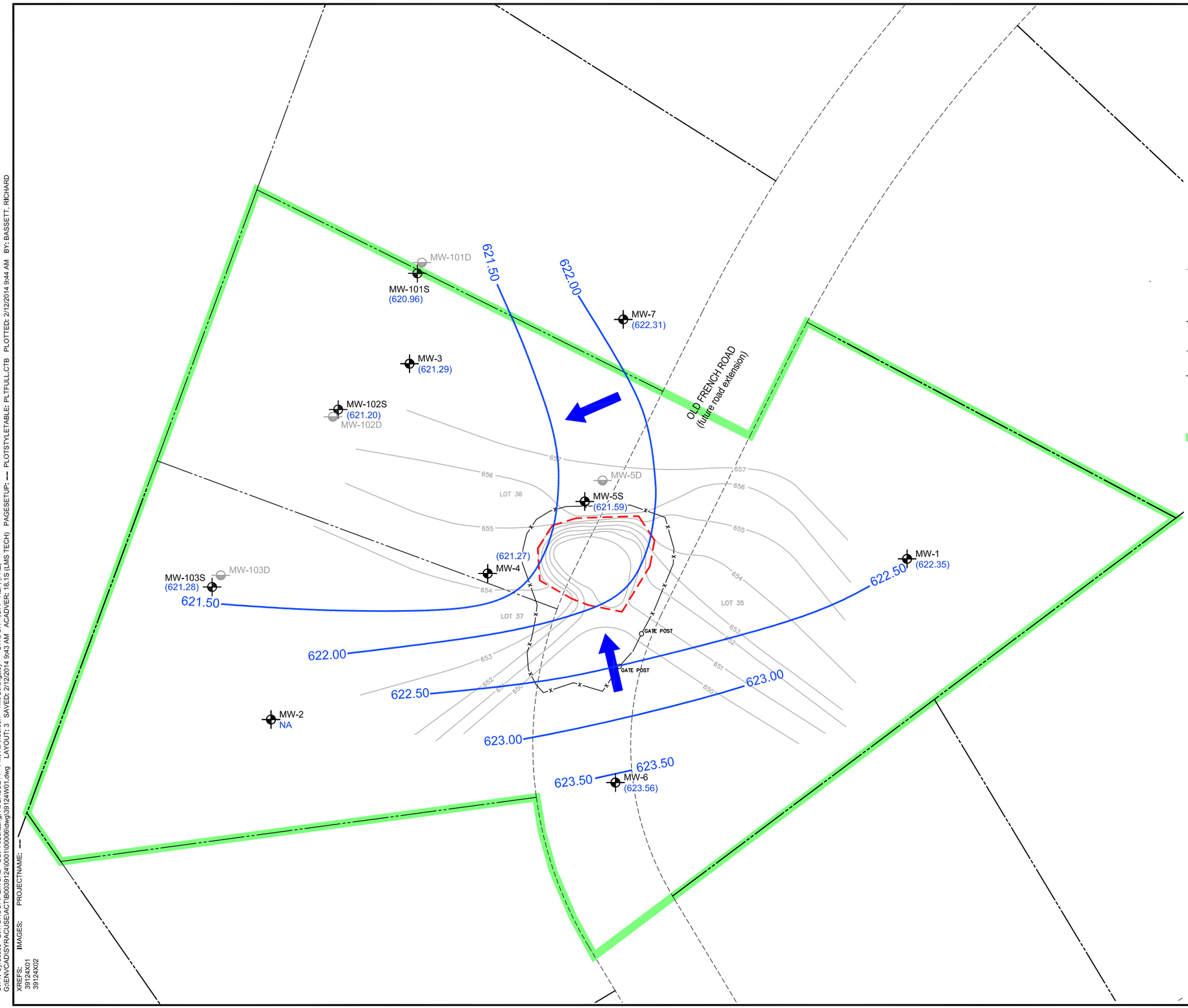


LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- 657 — APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT-OF-WAY LINE
- FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY
- (620.96) GROUNDWATER ELEVATION IN FEET
- 621.50 GROUNDWATER ELEVATION CONTOUR (FT. AMSL)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. FENCE AND PROPOSED SOIL VAPOR AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.

0 60' 120'

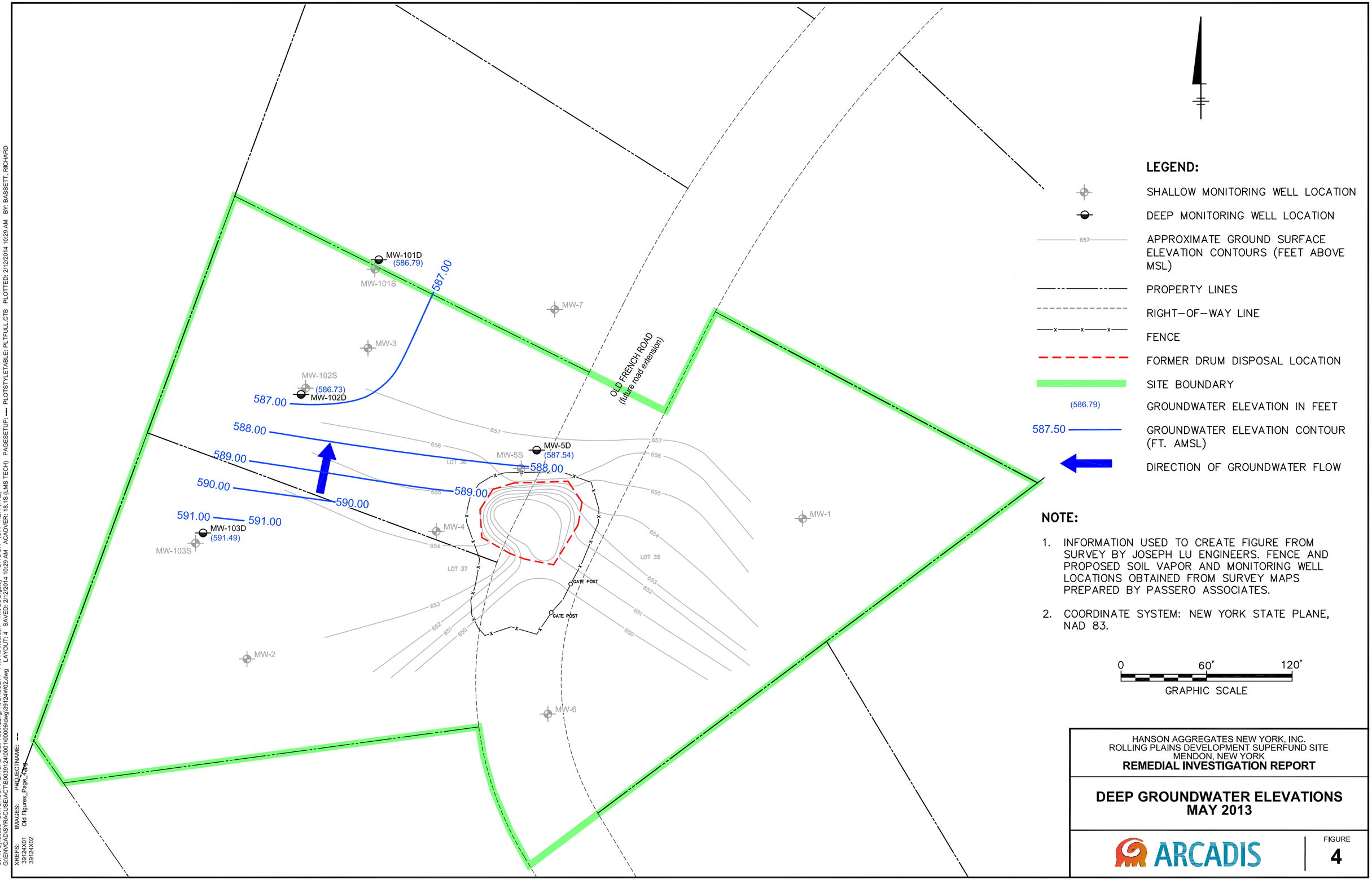
GRAPHIC SCALE

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK
REMEDIAL INVESTIGATION REPORT

SHALLOW GROUNDWATER ELEVATIONS MAY 2013

ARCADIS

FIGURE 3



LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- 657 — APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT–OF–WAY LINE
- FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY
- (586.79) GROUNDWATER ELEVATION IN FEET
- 587.50 GROUNDWATER ELEVATION CONTOUR (FT. AMSL)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. FENCE AND PROPOSED SOIL VAPOR AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.

0 60' 120'

GRAPHIC SCALE

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK
REMEDIAL INVESTIGATION REPORT

DEEP GROUNDWATER ELEVATIONS MAY 2013

ARCADIS

FIGURE 4

CITY: Syracuse DIV/GROUP: EnvCAD DB: A.Schilling, R. BASSETT PM: R.Anderson TM: D.Kingsley LYR: ON=*;OFF=*REF, (FRZ)
G:\ENVCAD\SYRACUSE\ACTIB\003912400010000\dwg\39124W02.dwg LAYOUT: 4 SAVED: 2/12/2014 10:29 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/12/2014 10:29 AM BY: BASSETT, RICHARD
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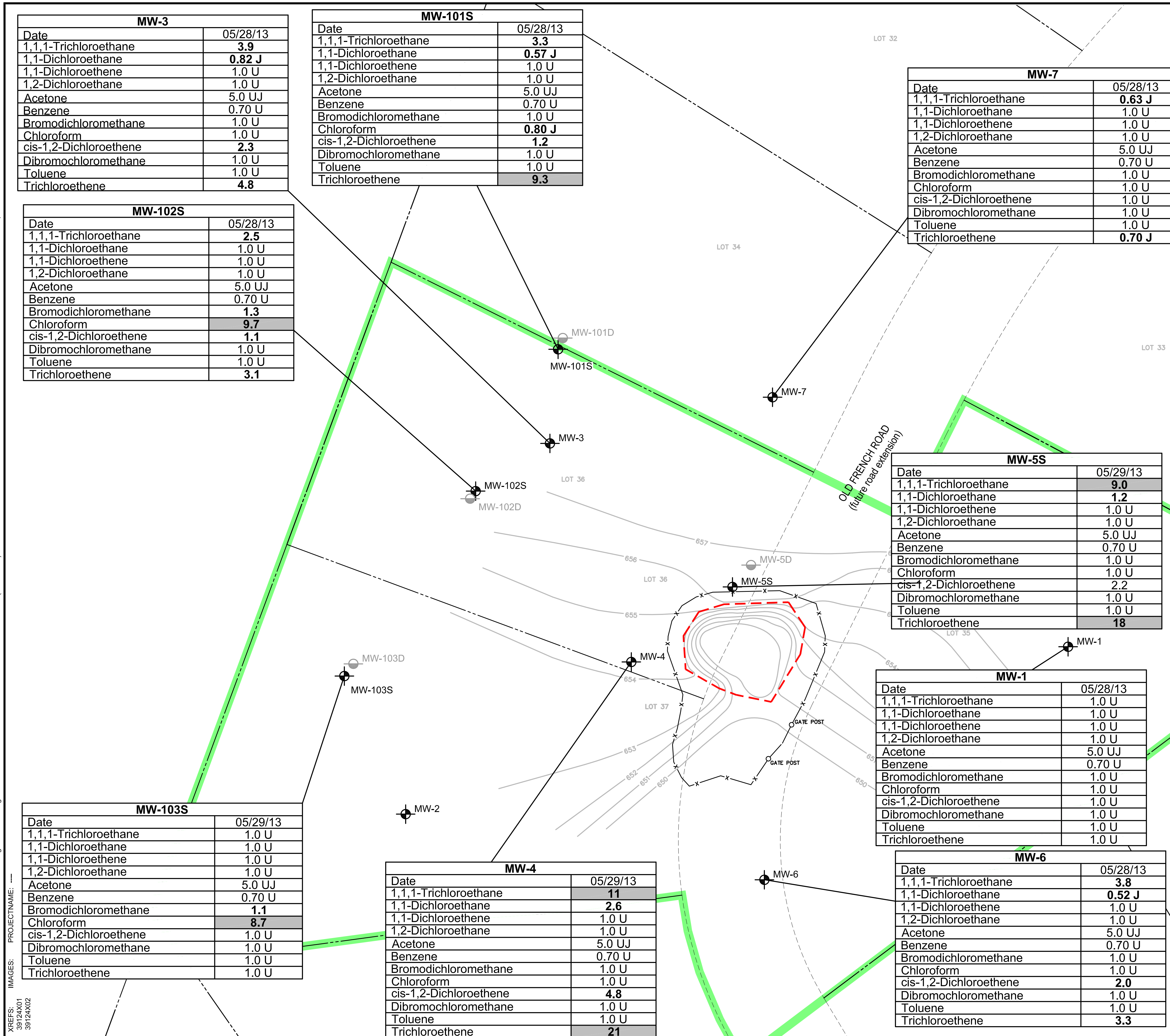


MW-3

Date	05/28/13
1,1,1-Trichloroethane	**3.9**
1,1-Dichloroethane	**0.82 J**
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	**2.3**
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**4.8**

MW-101S

Date	05/28/13
1,1,1-Trichloroethane	**3.3**
1,1-Dichloroethane	**0.57 J**
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	**0.80 J**
cis-1,2-Dichloroethene	**1.2**
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**9.3**

MW-102S

Date	05/28/13
1,1,1-Trichloroethane	**2.5**
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	**1.3**
Chloroform	**9.7**
cis-1,2-Dichloroethene	**1.1**
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**3.1**

MW-7

Date	05/28/13
1,1,1-Trichloroethane	**0.63 J**
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	1.0 U
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**0.70 J**

MW-5S

Date	05/29/13
1,1,1-Trichloroethane	**9.0**
1,1-Dichloroethane	**1.2**
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	2.2
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**18**

MW-1

Date	05/28/13
1,1,1-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	1.0 U
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	1.0 U

MW-103S

Date	05/29/13
1,1,1-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	**1.1**
Chloroform	**8.7**
cis-1,2-Dichloroethene	1.0 U
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	1.0 U

MW-4

Date	05/29/13
1,1,1-Trichloroethane	**11**
1,1-Dichloroethane	**2.6**
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	**4.8**
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**21**

MW-6

Date	05/28/13
1,1,1-Trichloroethane	**3.8**
1,1-Dichloroethane	**0.52 J**
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	**2.0**
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**3.3**

LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- 657 — APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT–OF–WAY LINE
- FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY

NOTE:

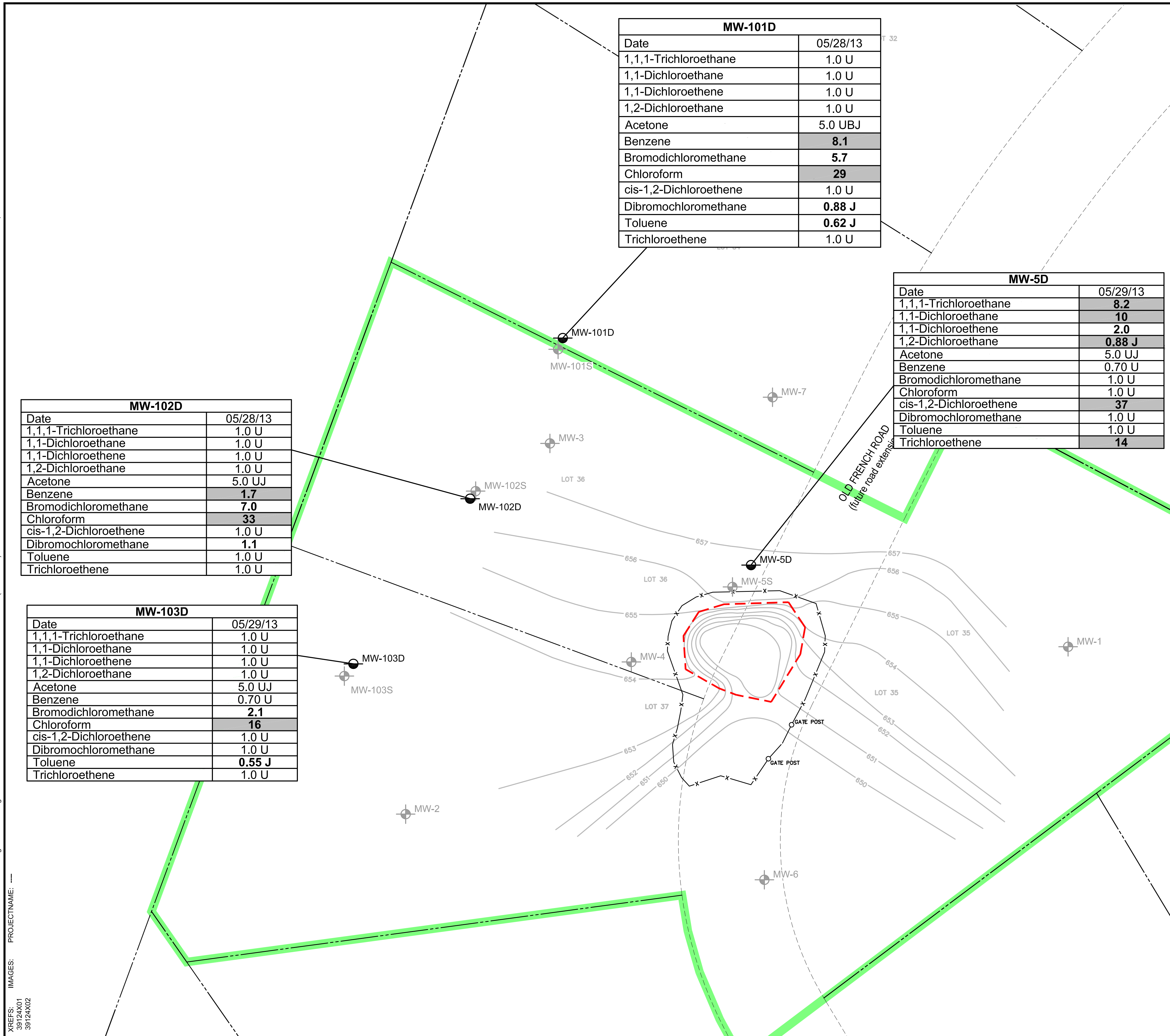
1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. SOIL SAMPLING, SOIL VAPOR SAMPLING, AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.
3. BOLD INDICATES A DETECTED ANALYTE.
4. SHADING INDICATES RESULT EXCEEDS TOGS 1.1.1 GROUNDWATER QUALITY STANDARDS.
5. B = ANALYTE WAS DETECTED IN LABORATORY BLANK.
6. U = COMPOUND NOT DETECTED ABOVE REPORTED SAMPLE QUANTITATION LIMIT.
7. J = ESTIMATED VALUE.
8. µg/L = MICROGRAMS PER LITER.

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK
REMEDIAL INVESTIGATION REPORT

VOLATILE ORGANIC COMPOUND CONCENTRATIONS IN SHALLOW GROUNDWATER

ARCADIS

FIGURE
5



MW-101D	
Date	05/28/13
1,1,1-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UBJ
Benzene	**8.1**
Bromodichloromethane	**5.7**
Chloroform	**29**
cis-1,2-Dichloroethene	1.0 U
Dibromochloromethane	**0.88 J**
Toluene	**0.62 J**
Trichloroethene	1.0 U

MW-5D	
Date	05/29/13
1,1,1-Trichloroethane	**8.2**
1,1-Dichloroethane	**10**
1,1-Dichloroethene	**2.0**
1,2-Dichloroethane	**0.88 J**
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	**37**
Dibromochloromethane	1.0 U
Toluene	1.0 U
Trichloroethene	**14**

MW-102D	
Date	05/28/13
1,1,1-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	**1.7**
Bromodichloromethane	**7.0**
Chloroform	**33**
cis-1,2-Dichloroethene	1.0 U
Dibromochloromethane	**1.1**
Toluene	1.0 U
Trichloroethene	1.0 U

MW-103D	
Date	05/29/13
1,1,1-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dichloroethane	1.0 U
Acetone	5.0 UJ
Benzene	0.70 U
Bromodichloromethane	**2.1**
Chloroform	**16**
cis-1,2-Dichloroethene	1.0 U
Dibromochloromethane	1.0 U
Toluene	**0.55 J**
Trichloroethene	1.0 U

LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- 657 APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT–OF–WAY LINE
- FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY

NOTE:

1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. SOIL SAMPLING, SOIL VAPOR SAMPLING, AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.
3. BOLD INDICATES A DETECTED ANALYTE.
4. SHADING INDICATES RESULT EXCEEDS TOGS 1.1.1 GROUNDWATER QUALITY STANDARDS.
5. B = ANALYTE WAS DETECTED IN LABORATORY BLANK.
6. U = COMPOUND NOT DETECTED ABOVE REPORTED SAMPLE QUANTITATION LIMIT.
7. J = ESTIMATED VALUE.
8. $\mu g/L$ = MICROGRAMS PER LITER.

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK
REMEDIAL INVESTIGATION REPORT

VOLATILE ORGANIC COMPOUND CONCENTRATIONS IN DEEP GROUNDWATER

ARCADIS

FIGURE 6

CITY: Syracuse DIV/GROUP: EnvCAD DB: A.Schilling, R. BASSETT PM: R.Anderson TM: D.Kingsley LYR: ON=*;OFF=REF, (FRZ)
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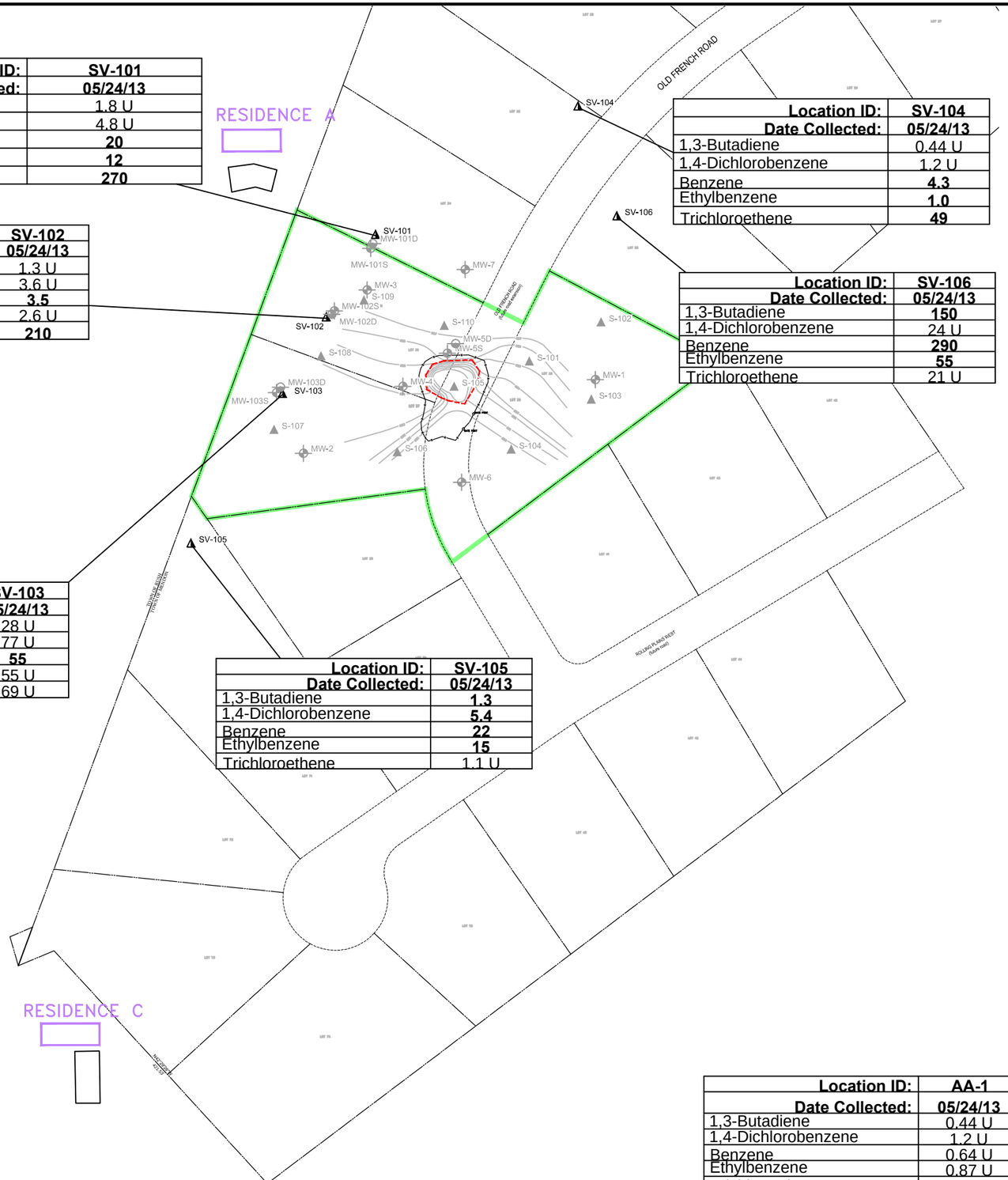


Location ID:	SV-101
Date Collected:	05/24/13
1,3-Butadiene	1.8 U
1,4-Dichlorobenzene	4.8 U
Benzene	**20**
Ethylbenzene	**12**
Trichloroethene	**270**

Location ID:	SV-102
Date Collected:	05/24/13
1,3-Butadiene	1.3 U
1,4-Dichlorobenzene	3.6 U
Benzene	**3.5**
Ethylbenzene	2.6 U
Trichloroethene	**210**

Location ID:	SV-103
Date Collected:	05/24/13
1,3-Butadiene	28 U
1,4-Dichlorobenzene	77 U
Benzene	**55**
Ethylbenzene	55 U
Trichloroethene	69 U

Location ID:	SV-104
Date Collected:	05/24/13
1,3-Butadiene	0.44 U
1,4-Dichlorobenzene	1.2 U
Benzene	**4.3**
Ethylbenzene	**1.0**
Trichloroethene	**49**

Location ID:	SV-105
Date Collected:	05/24/13
1,3-Butadiene	**1.3**
1,4-Dichlorobenzene	**5.4**
Benzene	**22**
Ethylbenzene	**15**
Trichloroethene	1.1 U

Location ID:	SV-106
Date Collected:	05/24/13
1,3-Butadiene	**150**
1,4-Dichlorobenzene	24 U
Benzene	**290**
Ethylbenzene	**55**
Trichloroethene	21 U

Location ID:	AA-1
Date Collected:	05/24/13
1,3-Butadiene	0.44 U
1,4-Dichlorobenzene	1.2 U
Benzene	0.64 U
Ethylbenzene	0.87 U
Trichloroethene	1.1 U

LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- SOIL VAPOR SAMPLING POINT LOCATION
- SOIL SAMPLING LOCATION
- 657 — APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT-OF-WAY LINE
- x—x—x FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY

NOTES:

1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. SOIL SAMPLING, SOIL VAPOR SAMPLING AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.
3. BOLD INDICATES A DETECTED ANALYTE.
4. D = COMPOUND QUANTITATED USING A SECONDARY DILUTION.
5. J = INDICATES AN ESTIMATED VALUE.
6. $\mu g/m^3$ = MICROGRAMS PER CUBIC METER.

0 160' 320'

GRAPHIC SCALE

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK

REMEDIAL INVESTIGATION REPORT

CONCENTRATIONS OF VOCS IN SOIL VAPOR

ARCADIS

FIGURE **7**

CITY: Syracuse DIV/GROUP: EnvCAD DB: A.Schilling, R. BASSETT PM: R.Anderson TM: D.Kingsley LYR: ON=*;OFF=REF; (FRZ)
G:\ENVCAD\SYRACUSE\ACTIVE\00391240001\000066\dwg\39124C02.dwg LAYOUT: 7 SAVED: 6/26/2014 10:32 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 6/26/2014 11:33 AM BY: SCHILLING, ADAM
XREFS: IMAGES: PROJECTNAME: ----
39124X01 39124X03.jp2
39124X02

Location ID:		S-109	S-109
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected RCRA Metals			
Arsenic	mg/kg	**2.98**	**2.91**
Barium	mg/kg	**42.4**	**33.8**
Cadmium	mg/kg	**0.358 J**	**0.313 J**
Chromium	mg/kg	**9.71 J**	**8.39 J**
Lead	mg/kg	**12.8**	**12.6**
Mercury	mg/kg	**0.0280**	**0.0282**
Selenium	mg/kg	1.13 U	**1.35**
Silver	mg/kg	1.13 U	**0.670 J**

Location ID:		S-110	S-110
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected RCRA Metals			
Arsenic	mg/kg	**2.72**	**3.33**
Barium	mg/kg	**34.8**	**48.5**
Cadmium	mg/kg	**0.449 J**	**0.414 J**
Chromium	mg/kg	**9.04 J**	**11.2 J**
Lead	mg/kg	**15.1**	**14.8**
Mercury	mg/kg	**0.0270**	**0.0257**
Selenium	mg/kg	1.22 U	1.04 U
Silver	mg/kg	**0.732 J**	**0.767 J**

Location ID:		S-101	S-101
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected RCRA Metals			
Arsenic	mg/kg	**3.00**	**2.03**
Barium	mg/kg	**33.2**	**23.2**
Cadmium	mg/kg	**0.288 J**	0.564 U
Chromium	mg/kg	**9.16 J**	**5.64 J**
Lead	mg/kg	**10.5**	**8.51**
Mercury	mg/kg	**0.0232**	**0.0158**
Selenium	mg/kg	1.08 U	1.13 U
Silver	mg/kg	**0.650 J**	**0.944 J**

Location ID:		S-108	S-108
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected Volatile Organics			
2-Butanone	ug/kg	**9.4 UJ**	**6.7 J**
Detected RCRA Metals			
Arsenic	mg/kg	**2.64**	**2.07**
Barium	mg/kg	**30.4**	**27.5**
Cadmium	mg/kg	**0.283 J**	**0.273 J**
Chromium	mg/kg	**7.62 J**	**6.91 J**
Lead	mg/kg	**14.6**	**9.19**
Mercury	mg/kg	**0.0248**	**0.0146 J**
Selenium	mg/kg	0.989 U	**0.836 J**
Silver	mg/kg	**0.665 J**	**0.614 J**

Location ID:		S-105	S-105
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected PCBs			
Aroclor-1260	mg/kg	**0.054**	0.030 U
Detected Volatile Organics			
2-Butanone	ug/kg	**12**	8.2 UJ
Benzene	ug/kg	**6.3**	1.7 UJ
Carbon Disulfide	ug/kg	**4.0**	1.7 UJ
Cyclohexane	ug/kg	**19**	8.2 UJ
Ethylbenzene	ug/kg	**1.7**	1.7 UJ
m,p-Xylene	ug/kg	**14**	1.7 UJ
Methyl acetate	ug/kg	**1.6 J**	1.7 UJ
Methylcyclohexane	ug/kg	**25**	1.7 UJ
o-Xylene	ug/kg	**4.2**	1.7 UJ
Toluene	ug/kg	**15**	1.7 UJ
Trichloroethene	ug/kg	**1.0 J**	1.7 UJ
Detected RCRA Metals			
Arsenic	mg/kg	**3.30**	**3.31**
Barium	mg/kg	**28.4**	**26.5**
Cadmium	mg/kg	0.499 U	0.537 U
Chromium	mg/kg	**17.8 J**	**15.7 J**
Lead	mg/kg	**26.2**	**10.7**
Mercury	mg/kg	**0.0160**	**0.0778**
Selenium	mg/kg	0.998 U	1.07 U
Silver	mg/kg	**0.691 J**	**0.931 J**

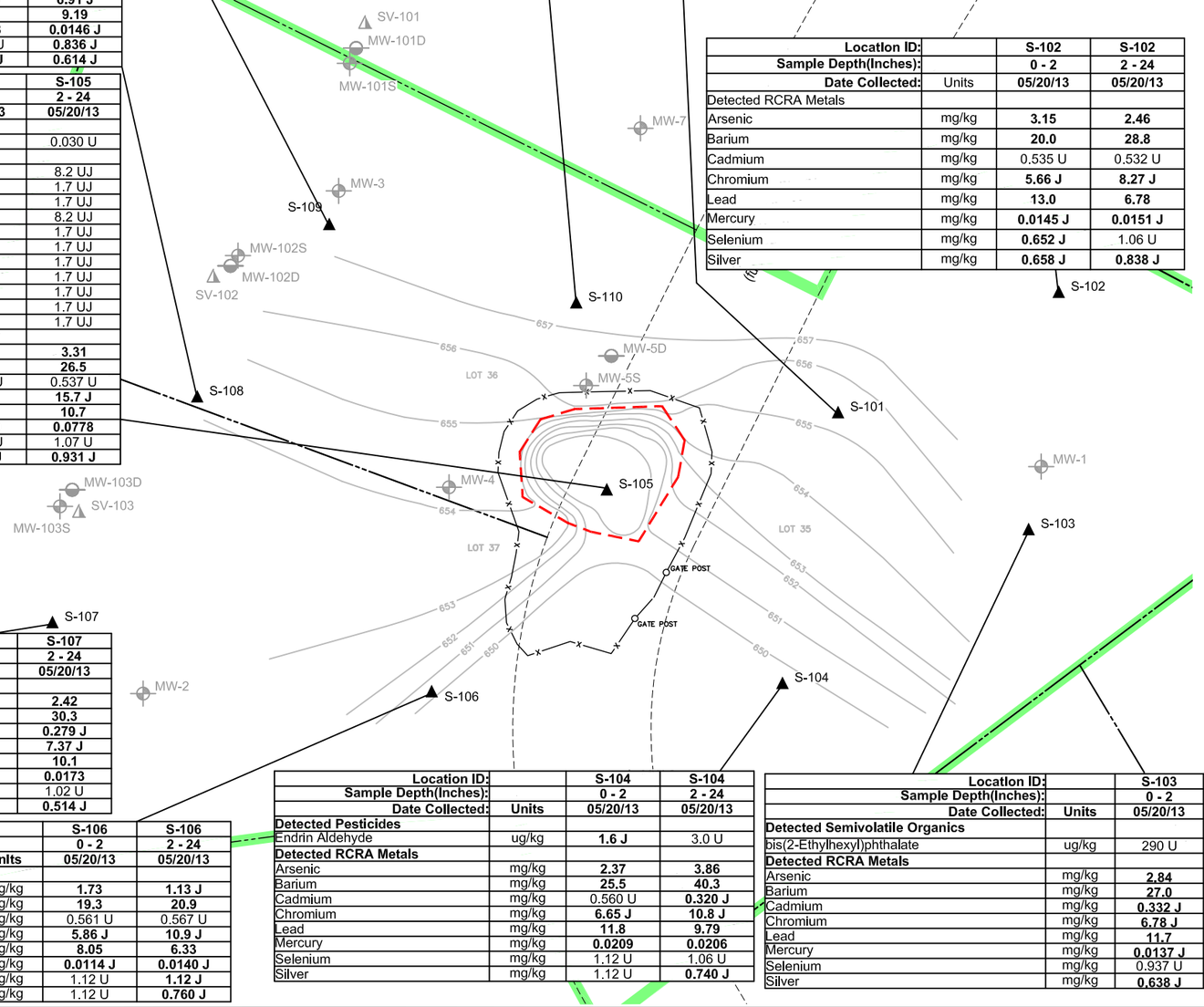
Location ID:		S-102	S-102
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected RCRA Metals			
Arsenic	mg/kg	**3.15**	**2.46**
Barium	mg/kg	**20.0**	**28.8**
Cadmium	mg/kg	0.535 U	0.532 U
Chromium	mg/kg	**5.66 J**	**8.27 J**
Lead	mg/kg	**13.0**	**6.78**
Mercury	mg/kg	**0.0145 J**	**0.0151 J**
Selenium	mg/kg	**0.652 J**	1.06 U
Silver	mg/kg	**0.658 J**	**0.838 J**

Location ID:		S-107	S-107
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected RCRA Metals			
Arsenic	mg/kg	**3.94**	**2.42**
Barium	mg/kg	**43.4**	**30.3**
Cadmium	mg/kg	**0.407 J**	**0.279 J**
Chromium	mg/kg	**10.8 J**	**7.37 J**
Lead	mg/kg	**17.4**	**10.1**
Mercury	mg/kg	**0.0350**	**0.0173**
Selenium	mg/kg	1.11 U	1.02 U
Silver	mg/kg	1.11 U	**0.514 J**

Location ID:		S-106	S-106
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected RCRA Metals			
Arsenic	mg/kg	**1.73**	**1.13 J**
Barium	mg/kg	**19.3**	**20.9**
Cadmium	mg/kg	0.561 U	0.567 U
Chromium	mg/kg	**5.86 J**	**10.9 J**
Lead	mg/kg	**8.05**	**6.33**
Mercury	mg/kg	**0.0114 J**	**0.0140 J**
Selenium	mg/kg	1.12 U	**1.12 J**
Silver	mg/kg	1.12 U	**0.760 J**

Location ID:		S-104	S-104
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected Pesticides			
Endrin Aldehyde	ug/kg	**1.6 J**	3.0 U
Detected RCRA Metals			
Arsenic	mg/kg	**2.37**	**3.86**
Barium	mg/kg	**25.5**	**40.3**
Cadmium	mg/kg	0.560 U	**0.320 J**
Chromium	mg/kg	**6.65 J**	**10.8 J**
Lead	mg/kg	**11.8**	**9.79**
Mercury	mg/kg	**0.0209**	**0.0206**
Selenium	mg/kg	1.12 U	1.06 U
Silver	mg/kg	1.12 U	**0.740 J**

Location ID:		S-103	S-103
Sample Depth(Inches):		0 - 2	2 - 24
Date Collected:	Units	05/20/13	05/20/13
Detected Semivolatile Organics			
bis(2-Ethylhexyl)phthalate	ug/kg	290 U	**190 J**
Detected RCRA Metals			
Arsenic	mg/kg	**2.84**	**1.94**
Barium	mg/kg	**27.0**	**28.4**
Cadmium	mg/kg	**0.332 J**	0.487 U
Chromium	mg/kg	**6.78 J**	**6.18 J**
Lead	mg/kg	**11.7**	**7.98**
Mercury	mg/kg	**0.0137 J**	**0.00793 J**
Selenium	mg/kg	0.937 U	0.975 U
Silver	mg/kg	**0.638 J**	**0.666 J**



LEGEND:

- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- SOIL VAPOR SAMPLING POINT LOCATION
- SOIL SAMPLING LOCATION
- APPROXIMATE GROUND SURFACE ELEVATION CONTOURS (FEET ABOVE MSL)
- PROPERTY LINES
- RIGHT-OF-WAY LINE
- FENCE
- FORMER DRUM DISPOSAL LOCATION
- SITE BOUNDARY

NOTES:

1. INFORMATION USED TO CREATE FIGURE FROM SURVEY BY JOSEPH LU ENGINEERS. SOIL SAMPLIG, SOIL VAPOR SAMPLING AND MONITORING WELL LOCATIONS OBTAINED FROM SURVEY MAPS PREPARED BY PASSERO ASSOCIATES.
2. COORDINATE SYSTEM: NEW YORK STATE PLANE, NAD 83.
3. BOLD INDICATES A DETECTED ANALYTE.
4. SHADING INDICATES AN EXCEEDANCE OF THE NYSDEC PART 375 UNRESTRICTED USE STANDARD.
5. J = INDICATES AN ESTIMATED VALUE.
6. U = THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.
7. mg/kg = MILLIGRAMS PER KILOGRAM.
8. µg/kg = MICROGRAMS PER KILOGRAM.

0 60' 120'

GRAPHIC SCALE

HANSON AGGREGATES NEW YORK, INC.
ROLLING PLAINS DEVELOPMENT SUPERFUND SITE
MENDON, NEW YORK

REMEDIAL INVESTIGATION REPORT

DETECTED CONCENTRATIONS IN NEAR SURFACE SOIL

ARCADIS

FIGURE 8

CITY: Syracuse DIV/GROUP: EnvCAD DB: A.Schilling, R. BASSETT PM: R.Anderson TM: D.Kingsley LYR: ON=*;OFF=REF; (FRZ)
G:\ENVCAD\SYRACUSE\ACTIB\0039124\0001\0000061dwg\39124C03.dwg LAYOUT: 8 SAVED: 2/11/2014 7:00 PM ACADVER: 18.1S (LMS TECH)
XREFS: 39124X01 39124X02 IMAGES: PROJECTNAME: --- PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/11/2014 7:00 PM BY: BASSETT, RICHARD