

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: Fort Drum Military Reservation
Facility Address: 85 First Street West Fort Drum, New York 13602
Facility EPA ID #: NY0214020281

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

if data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Is groundwater known or reasonably suspected to be “contaminated”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”

If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s): Fort Drum is located in the northern portion of New York State approximately 16 kilometers (km) northeast of Watertown (Figures 1 & 2). Fort Drum is roughly rectangular in shape measuring 10 km in width and 32 km in length or 107,265 acres. Ft. Drum is the largest Army installation in the Northeast.

Ft. Drum has been used as a military training site since 1908 and is home to the 10th Mountain Division. Annually almost 50,000 soldiers participate in training at the base.

The facility contains a variety of waste sites and areas of concern including: 9 landfills; 7 underground storage tank sites; 4 storage areas; 4 spill sites; and 3 explosive ordnance disposal areas. Beginning in 1980, Ft. Drum has conducted investigations and implemented interim corrective actions to evaluate and mitigate releases to the environment.

Groundwater investigations at Ft. Drum have indicated the presence of contamination at levels above NYS standards. The nature of the contamination is related to past underground storage of fuels (leaded and unleaded gasoline, diesel and JP-4 along Gasoline Alley; Unleaded gasoline with MTBE at Building P-2140). Separate phase product (LNAPL) has been measured at several areas along Gasoline Alley and Building P-2140 at various thickness. Please see the attached figures (FtDrum001.pdf through FtDrum006.pdf) which illustrate the magnitude and extent of the contamination.

Footnotes:

¹“Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate “levels” (appropriate for the protection of the groundwater resource and its beneficial uses).

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3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"² as defined by the monitoring locations designated at the time of this determination)?

- X** If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"².
- If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"²) - skip to #8 and enter "NO" status code, after providing an explanation.
- If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): At Areas 1595, 1795 and 3805 the contamination plume has reached the area of groundwater discharge to surface water and has therefore reached its maximum extent. At area 1295, 1395 & 1495 the rate of migration at the leading edge of the plume is mitigated by natural attenuation processes (dilution, dispersion and biodegradation). At Building P-2140, the leading edge of the plume has either reached equilibrium with natural attenuation processes or is discharging to surface water. Groundwater monitoring data over the past seven years supports this determination.

In addition, groundwater remedial systems have been installed and are in operation at Area 1295 (Soil removal and In-situ Oxidation - 2000, In-situ oxidation 2007); Areas 1395 & 1495 (Aquifer air sparging/bioventing - 1997); Area 1595 (Groundwater extraction - 1992 Aquifer air sparging/Soil vapor extraction - 2005); Area 1795 (Groundwater extraction - 1996, Aquifer air sparging/Soil vapor extraction - 2007), Area 3805 (Groundwater extraction - 1995, Aquifer air sparging/Soil vapor extraction - 2003); Building P-2140 (Groundwater extraction - 1997, Aquifer air sparging/Soil vapor extraction - 2001)

² "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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4. Does "contaminated" groundwater discharge into surface water bodies?

If yes - continue after identifying potentially affected surface water bodies.

If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): Four (4) of the groundwater contamination plumes have documented discharges to surface water bodies. The Area 1595 plume discharges to the Area 1595 creek. The Area 1795 plume discharges to the Area 1795 creek. The Area 3805 plume discharges to the OSL (Old Sanitary Landfill Creek and its unnamed tributary). The Building P-2140 plume discharges to a wetland near the southern portion of the Military Reservation. Additional information on the affected surface water bodies is contained in the Comprehensive Contaminant Assessment Report (CCAR) and the Building P-2140 Remedial Investigation report.

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5. Is the discharge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

X If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s): As part of the RCRA Facility Investigations (RFI) at Ft. Drum, impacts to surface water bodies from contaminated groundwater discharges have been documented at Areas 1595, 1795 3805/Old Sanitary Landfill and Building P-2140. These impacts were evaluated and risk assessed as part of the Ft. Drum Risk Assessment and Fish and Wildlife Impact Assessment. Based on the results of these assessments, Corrective actions have been proposed for the Area 1595 and OSL creeks. The corrective measures at the Area 1595 creek (sediment removal) will be implemented once the groundwater corrective measures have provided significant reductions to site groundwaters in order to decrease the possibility of recontamination of the creek in the post remedial period. Corrective measures for the OSL creek (phytoremediation) were implemented in 2007. Further information can be found in the Ft. Drum Risk Assessment and Fish and Wildlife Assessment, Area 1595 Corrective Measures Study and the Old Sanitary Landfill Corrective Measures Study.

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

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6. Can the discharge of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

 X If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

_____ If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s): Discharge of contaminated groundwater has been documented at Areas 1595, 1795, 3805/Old Sanitary Landfill and Building P-2140. The contaminants of concern at all of the areas are petroleum related or iron (associated with subsurface natural attenuation of the contamination). The groundwater discharges were assessed as part of the risk assessment (RA) and Fish and Wildlife Assessment. The RA concluded that the discharges to the 1795 creek and wetland at Building P-2140 do not pose an unacceptable risk. In addition, the discharges at these areas have been reduced by the implementation of corrective measures. The RA concluded that the discharges at Area 1595 and 3805/OSL require further action. Corrective measures have been implemented at these areas to address the discharges.

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

X If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

If no - enter "NO" status code in #8.

If unknown - enter "IN" status code in #8.

Rationale and Reference(s): As part of the Final Corrective Measures for the Fort Drum Military Reservation, remedial systems have been installed and are in operation to address groundwater contamination. Performance monitoring programs in place have indicated that the extent of the groundwater plumes have stabilized and groundwater migration is under control. In addition, concentrations of contaminants in groundwater and surface water have decreased in response to the implemented remedial actions.

Details on the remedial systems can be found in the following documents:

Area 1595 Corrective Measures Implementation report

Area 1795 Corrective Measures Design report

Areas 1895/1995/3805/Old Sanitary Landfill Corrective measures report

Old Sanitary Landfill Phytoremediation design report

AAFES Station (Building P-2140) Corrective Measures Final Design Report.

Site-wide Monitoring Program Report

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8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Ft. Drum Military Reservation facility, EPA ID # NY0214020281, located at Fort Drum, New York 13602. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

NO - Unacceptable migration of contaminated groundwater is observed or expected.


IN - More information is needed to make a determination.

Completed by


Kent D. Johnson
Engineering Geologist

Date: September 24, 2007

Supervisor


Denise Radtke
Section Chief

Date: September 25, 2007

Director


Robert J. Phaneuf
Acting Bureau Director

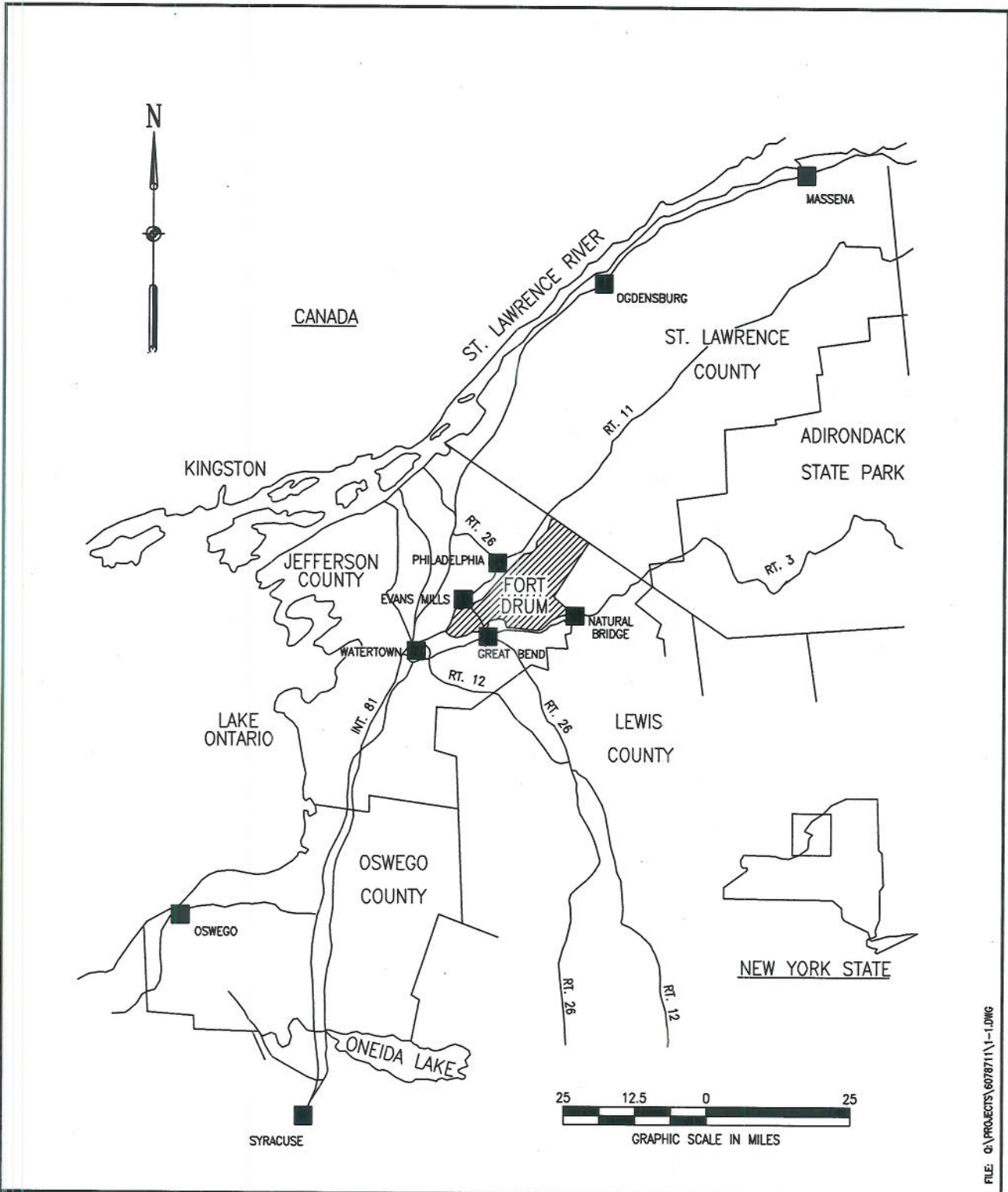
Date: September 25, 2007

Locations where References may be found:


New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
625 Broadway
Albany, NY 12233-7258

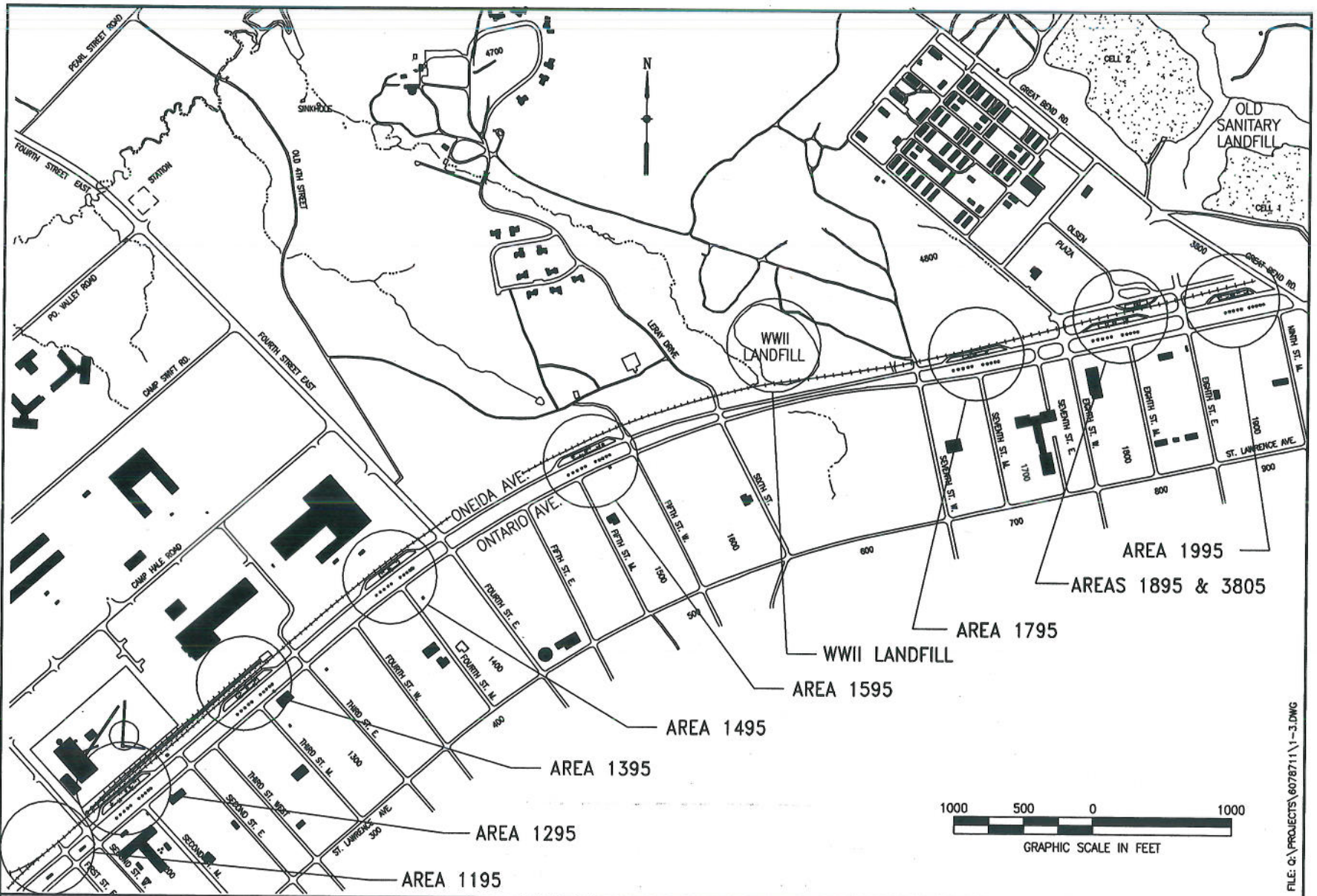
Contact telephone and e-mail numbers

(name) Kent D. Johnson
(phone #) 518 - 402- 8594
(e-mail) kdjohnso @ gw.dec.state.ny.us



FILE: G:\PROJECTS\6078711\1-1.DWG

 EA ENGINEERING, SCIENCE, AND TECHNOLOGY		COMPREHENSIVE CONTAMINANT ASSESSMENT REPORT GASOLINE ALLEY, FORT DRUM, NEW YORK			LOCATION MAP OF FORT DRUM		
PROJECT MGR VAW	DESIGNED BY BGM	DRAWN BY FDV	CHECKED BY JCH	SCALE 1"=25 MILES	DATE 1-5-99	PROJECT NO 60787.11	FIGURE 1-1



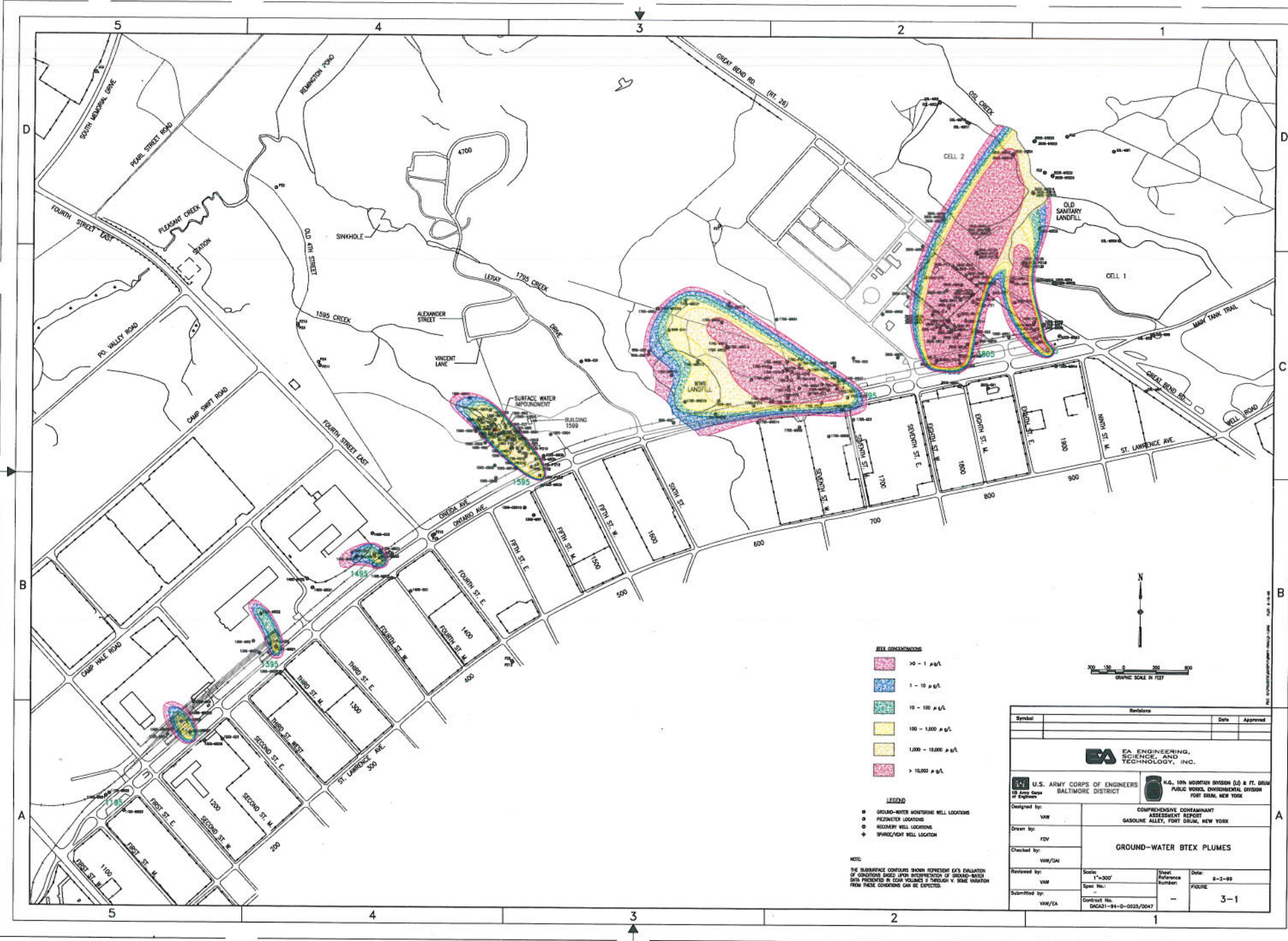
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COMPREHENSIVE CONTAMINANT ASSESSMENT REPORT
GASOLINE ALLEY, FORT DRUM, NEW YORK

GASOLINE ALLEY
SITE PLAN

DESIGNED BY BGM	DRAWN BY FDV	DATE 1-5-99	PROJECT NO. 60787.11
CHECKED BY JCH	PROJECT MGR. VAW	SCALE 1"=1000'	FIGURE 1-3



- LEGEND**
- GROUND-WATER MONITORING WELL LOCATIONS
 - FRESHWATER LOCATIONS
 - RECOVERY WELL LOCATIONS
 - ◆ SPARK/WELL LOCATIONS

NOTE:
 THE SURFACE CONTOURS SHOWN REPRESENT EX'S DILUTION OF CONTAMINANT SOURCE UNDER INTERPRETATION OF GROUND-WATER DATA PROVIDED BY LOCAL VOLUNTEERS THROUGH A HOME VISITATION FROM THESE CONTOURS CAN BE EXPECTED.

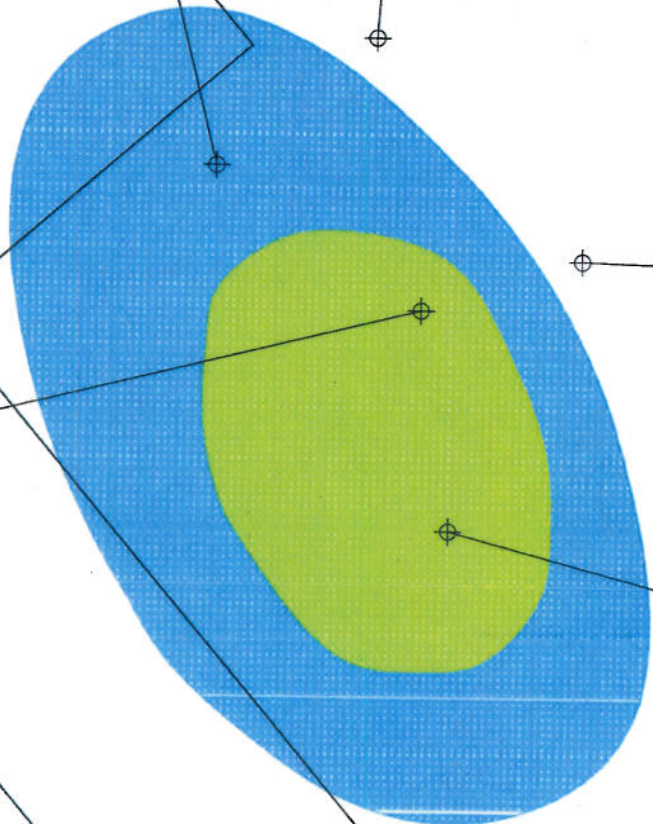
Revisions		
Symbol	Description	Approved
U.S. ARMY CORPS OF ENGINEERS BALTIMORE DISTRICT 49 Army Corps of Engineers		W.A. 10th WORTHEN DIVISION (D) & P. DEAN PUBLIC WORKS, ENVIRONMENTAL DIVISION FORT SOON, NEW YORK
Designed by: VMB Drawn by: FDV Checked by: VMB/DW	COMPREHENSIVE COMBATANT ASSESSMENT REPORT GASOLINE ALLEY, FORT SOON, NEW YORK GROUND-WATER BTEX PLUMES	
Reviewed by: VMB Submitted by: VMB/EA	Scale: 1"=300' Spec. No.: Contract No. DCA31-94-D-0025/0047	Sheet Reference Number: Date: 8-2-99 FIGURE 3-1

FENCES

ND NOT DETECTED

WELL DESIGNATION	1295-MW02		
DATE SAMPLED	10/06	14	BTEX CONC. (UG/L)
	10/02	42	

1245-MW02		
10/06	8	
10/02	42	



1		
10/06		
10/02		

12		
10/06		
10/02		

NOTES

- (1) BTEX CONCENTRATION BASED ON THE FALL 2002 SAMPLING
- (2) ANNUAL SAMPLING HAS BEEN CONDUCTED AT THE SITE IN 2002 AND 2006



GROUNDWATER AREA
GASOLINE ALLEY, FORT DRUM, NEW YORK
FALL 2002

PROJECT MGR: TP	DESIGNED BY: BSM/JAM	CREATED BY: BSM/JAM	CHECKED BY: JAM	SCALE: AS SHOWN	DATE: JUNE 2007	PROJECT NO: 6155802
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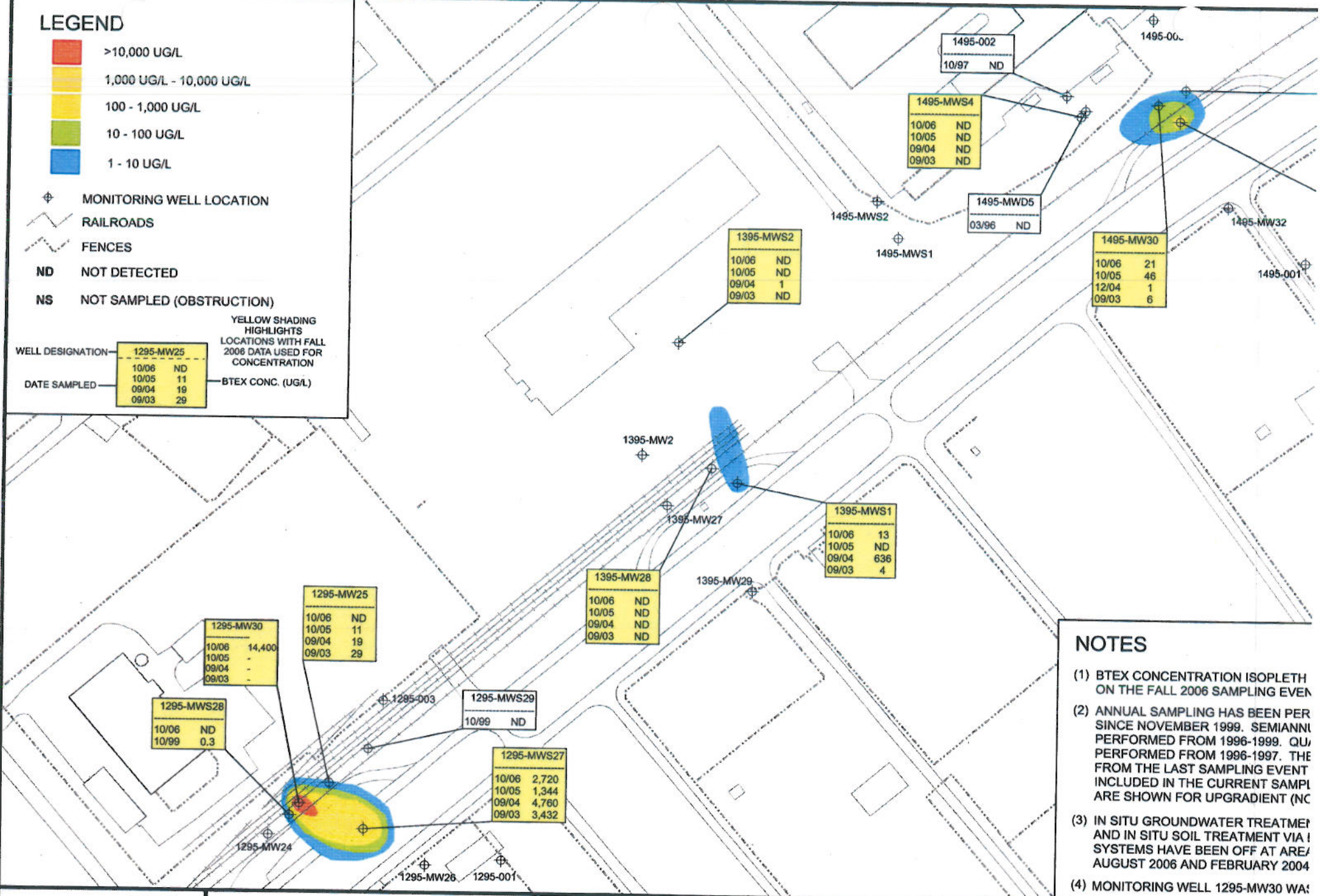
LEGEND



- MONITORING WELL LOCATION
- RAILROADS
- FENCES
- ND** NOT DETECTED
- NS** NOT SAMPLED (OBSTRUCTION)

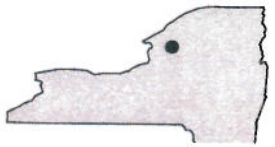
YELLOW SHADING HIGHLIGHTS LOCATIONS WITH FALL 2006 DATA USED FOR CONCENTRATION

WELL DESIGNATION	DATE SAMPLED	BTEX CONC. (UG/L)
1295-MW25	10/06	ND
	10/05	11
	09/04	19
	09/03	29



NOTES

- (1) BTEX CONCENTRATION ISOPLETH ON THE FALL 2006 SAMPLING EVEN
- (2) ANNUAL SAMPLING HAS BEEN PERFORMED SINCE NOVEMBER 1999. SEMIANNI PERFORMED FROM 1996-1999. QU PERFORMED FROM 1996-1997. THE FROM THE LAST SAMPLING EVENT INCLUDED IN THE CURRENT SAMPL ARE SHOWN FOR UPGRADIENT (NC
- (3) IN SITU GROUNDWATER TREATME AND IN SITU SOIL TREATMENT VIA I SYSTEMS HAVE BEEN OFF AT ARE/ AUGUST 2006 AND FEBRUARY 2004
- (4) MONITORING WELL 1295-MW30 WA



GROUNDWATER BTEX PLUME AREA 1295, 1395, AND 1495 GASOLINE ALLEY, FORT DRUM, NEW YORK



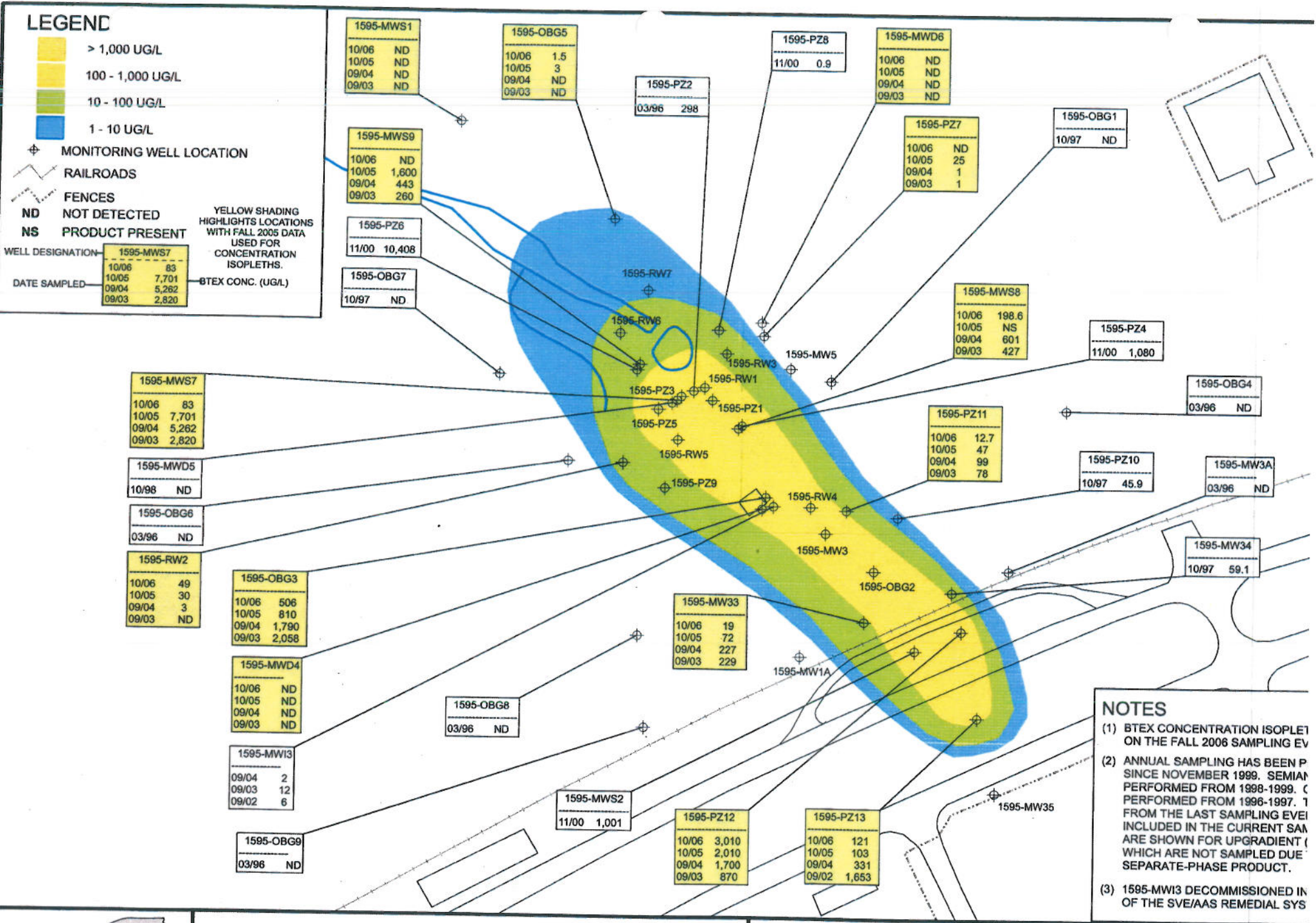
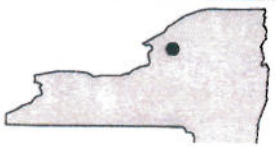
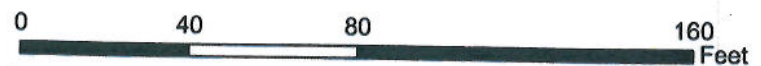


FIGURE 2
GROUNDWATER BTEX PLUME
AREA 1595



LEGEND



MONITORING WELL LOCATION

RAILROADS

FENCES

ND NOT DETECTED

YELLOW SHADING HIGHLIGHTS LOCATIONS WITH FALL 2006 DATA USED FOR CONCENTRATION

WELL DESIGNATION - BTEX CONC. (UG/L)

1795-MWS18	10/06 213
	10/05 52
	10/04 80
	09/03 68

DATE SAMPLED

1795-MWD20	10/06 ND
	10/05 45
	09/04 2
	09/03 30

1795-MWS21	10/06 2,462
	10/05 347
	09/04 164
	09/03 1,597

1795-MWS2	10/06 1,419
	10/05 1,302
	10/04 1,951
	09/03 3,840

1795-MWS1	10/06 ND
	10/05 ND
	09/04 ND
	09/03 ND

WWII-004	10/06 ND
	10/05 21
	09/04 7
	09/03 3

WWII-006	10/06 5
	10/05 3
	09/04 5
	09/03 9

WWII-005	10/06 ND
	10/05 ND
	09/04 ND
	09/03 ND

1795-MWS16	10/06 ND
	10/05 ND
	09/04 ND
	09/03 ND

1795-MWS17	10/06 ND
	10/05 ND
	09/04 ND
	09/03 34

1795-MWS11	10/06 4,111
	10/05 8,214
	09/04 5,463
	09/03 7,725

1795-MWS18	10/06 213
	10/05 52
	10/04 80
	09/03 68

WWII-003	10/97 766
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WWII-002	03/96 ND
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1795-MWS10	10/97 7.2
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1795-PZ14	10/05 15
	09/04 1,220
	09/03 328
	10/02 728

1795-MWS15	05/95 5,200
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1795-RW2	10/95 75.3
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1795-MWS14	10/97 ND
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1795-PZ13	10/06 ND
	10/05 0.3
	09/04 ND
	09/03 ND

1795-MWS6	03/96 12,516
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1795-PZ12	10/06 2,430
	10/05 1,833
	10/04 4,111
	09/03 3,500

1795-MWS9	10/06 4
	10/05 36
	09/04 ND
	09/03 29

1795-MWD13	10/06 4
	10/05 36
	09/04 ND
	09/03 29

1795-MWI12	10/06 616
	10/05 1,325
	09/04 698
	9/03 713

1795-MWS3	10/06 4,208
	10/05 8,060
	09/04 8,600
	09/03 3,207

1795-MWS4	03/96 ND
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1795-PZ15	12/96 17,000
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1795-MWS5	05/95 38,490
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1795-PZ16	07/97 20,400
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1795-PZ8	10/06 3,875
	10/05 4,166
	10/04 5,887
	09/03 5,329

1795-PZ10	10/97 7,576
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1795-PZ4	10/06 3,937
	10/05 12,030
	10/04 8,370
	09/03 8,750

1795-003	03/96 ND
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1795-MW1	03/96 ND
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1795-MW2	03/96 ND
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1795-MW3	03/96 ND
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1795-MW4	03/96 ND
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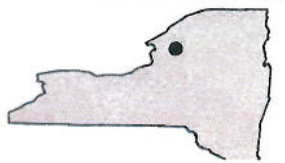
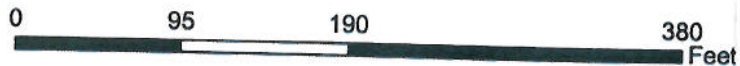
1795-MW5	03/96 ND
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1795-MW6	03/96 ND
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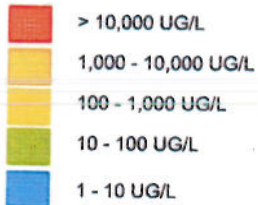
WWII LANDFILL

- NOTES**
- (1) BTEX CONCENTRATION ISOPLETH ON THE FALL 2006 SAMPLING EVENT
 - (2) ANNUAL SAMPLING HAS BEEN PERFORMED SINCE NOVEMBER 1999. SEMI-ANNUAL SAMPLING HAS BEEN PERFORMED FROM 1998-1999. QUANTITIES PERFORMED FROM 1996-1997. THE DATA FROM THE LAST SAMPLING EVENT INCLUDED IN THE CURRENT SAMPLING ARE SHOWN FOR UPGRADIENT (NC) WHICH ARE NOT SAMPLED DUE TO SEPARATE-PHASE PRODUCT.
 - (3) 1795-PZ11 WAS ABANDONED IN 2006 AS CASING WAS DAMAGED.

GROUNDWATER BTEX PLUME AREA 1795 GASOLINE ALLEY, FORT DRUM, NEW YORK FALL 2006



LEGEND



- MONITORING WELL LOCATION
- RAILROADS
- FENCES
- ND** NOT DETECTED
- NS** NOT SAMPLED (PRODUCT)

YELLOW SHADING HIGHLIGHTS LOCATIONS WITH FALL 2006 DATA USED FOR CONCENTRATION

WELL DESIGNATION	3805-016
DATE SAMPLED	10/06 3,950
	10/05 787
	10/04 2,609
	09/03 1,534

WELL DESIGNATION	3805-PZ12S
DATE SAMPLED	10/06 30,000
	07/97 42,401

WELL DESIGNATION	3805-016
DATE SAMPLED	10/06 3,950
	10/05 787
	10/04 2,609
	09/03 1,534

WELL DESIGNATION	3805-PZ2S
DATE SAMPLED	07/95 16,760

WELL DESIGNATION	3805-PZ2D
DATE SAMPLED	10/97 ND

WELL DESIGNATION	3805-MWS2
DATE SAMPLED	03/96 ND

WELL DESIGNATION	3805-PZ21
DATE SAMPLED	10/97 ND

WELL DESIGNATION	3805-MWD7
DATE SAMPLED	10/97 0.9

WELL DESIGNATION	3805-MWI6
DATE SAMPLED	10/97 ND

WELL DESIGNATION	3805-MWS1
DATE SAMPLED	03/96 ND

WELL DESIGNATION	3805-003
DATE SAMPLED	10/06 720
	10/05 1,159
	10/04 728
	09/03 4,151

WELL DESIGNATION	OSL-MW2A
DATE SAMPLED	03/96 ND

WELL DESIGNATION	OSL-MW2
DATE SAMPLED	03/96 ND

WELL DESIGNATION	OSL-MW10
DATE SAMPLED	03/96 ND

WELL DESIGNATION	OSL-MW11
DATE SAMPLED	03/96 ND

WELL DESIGNATION	3805-MWI9
DATE SAMPLED	10/06 267
	10/05 213
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	09/03 4

WELL DESIGNATION	3805-MWS8
DATE SAMPLED	10/06 455
	10/05 1,368
	09/04 ND
	09/03 49

WELL DESIGNATION	3805-MWS3
DATE SAMPLED	10/06 ND
	03/96 ND

WELL DESIGNATION	3805-PZ12I
DATE SAMPLED	10/97 ND

WELL DESIGNATION	3805-PZ3
DATE SAMPLED	03/96 18,410

WELL DESIGNATION	3805-PZ2S
DATE SAMPLED	07/95 16,760

WELL DESIGNATION	3805-015
DATE SAMPLED	03/96 ND

WELL DESIGNATION	3805-PZ2D
DATE SAMPLED	10/97 ND

WELL DESIGNATION	3805-MWS2
DATE SAMPLED	03/96 ND

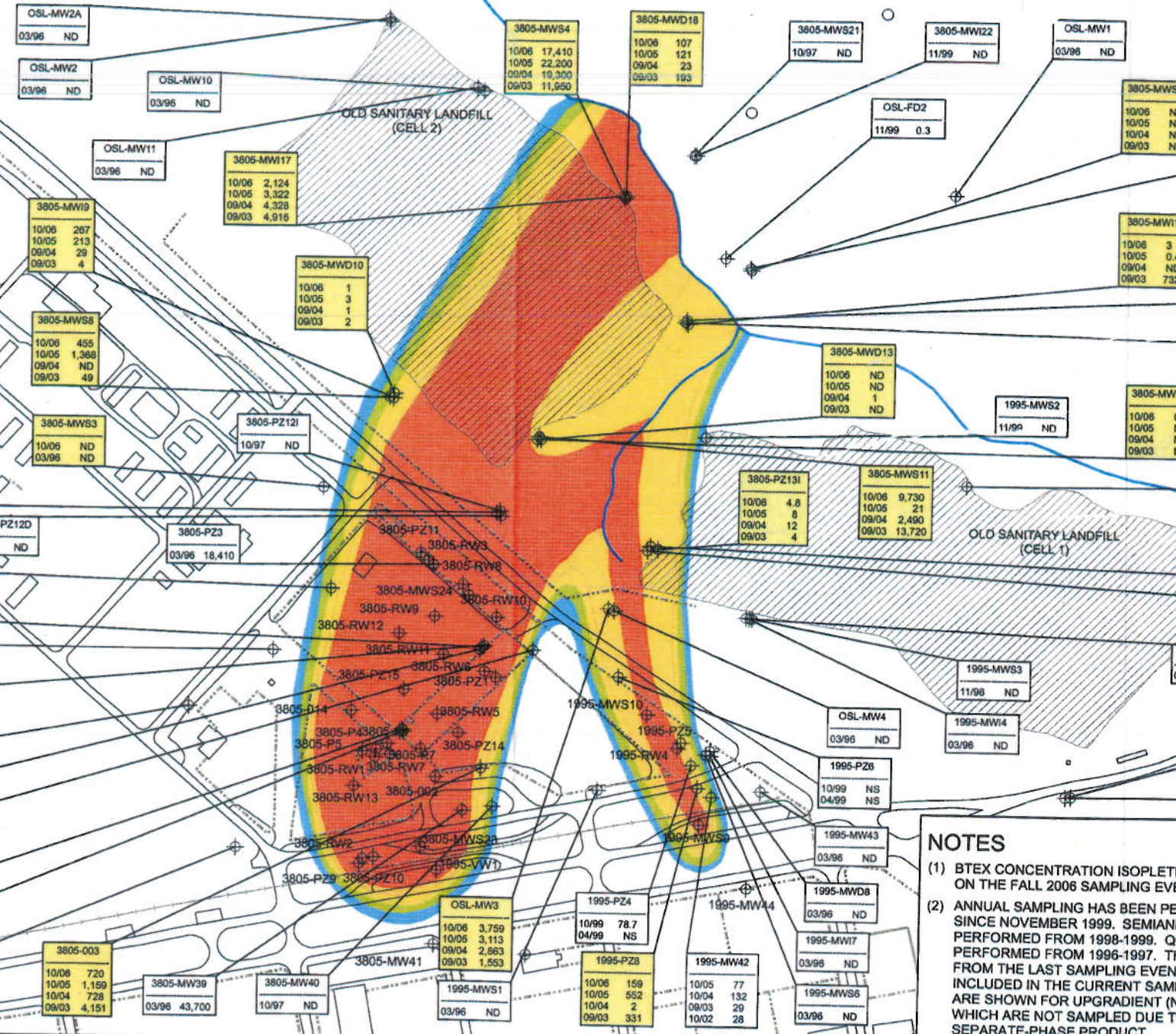
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DATE SAMPLED	10/97 0.9

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DATE SAMPLED	10/97 ND

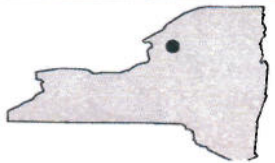
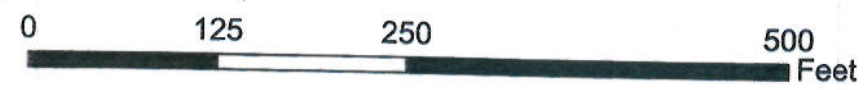
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DATE SAMPLED	03/96 ND

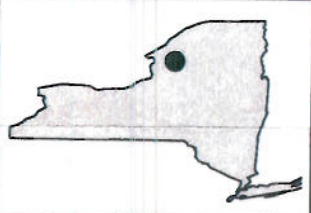
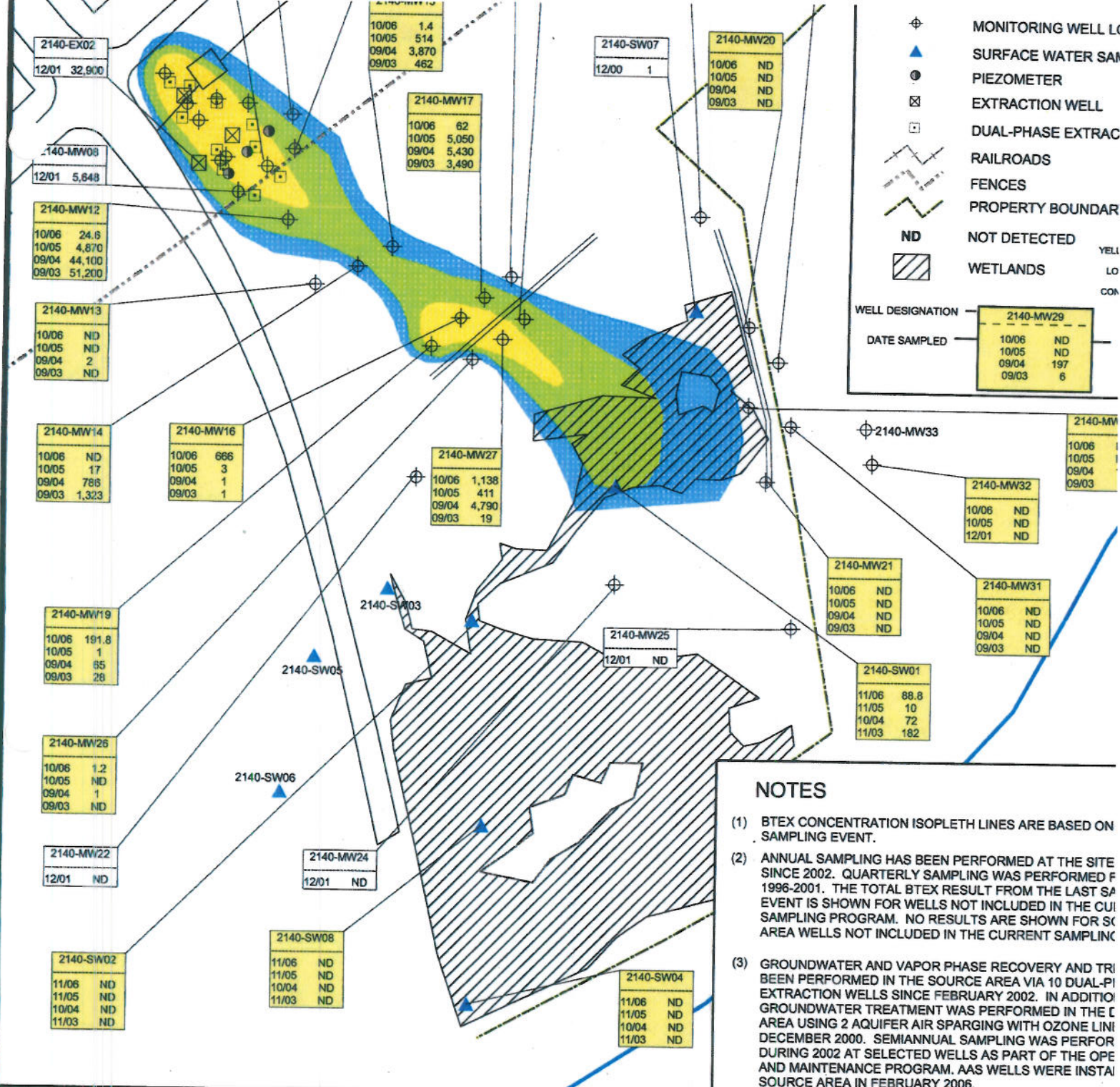
WELL DESIGNATION	3805-003
DATE SAMPLED	10/06 720
	10/05 1,159
	10/04 728
	09/03 4,151



- ### NOTES
- (1) BTEX CONCENTRATION ISOPLETH ON THE FALL 2006 SAMPLING EVEN
 - (2) ANNUAL SAMPLING HAS BEEN PERFORMED FROM 1998-1999. QU/ PERFORMED FROM 1996-1997. THE FROM THE LAST SAMPLING EVENT INCLUDED IN THE CURRENT SAMPL ARE SHOWN FOR UPGRADIENT (NC WHICH ARE NOT SAMPLED DUE TO SEPARATE-PHASE PRODUCT.

GROUNDWATER BTEX PLUME
 AREA 3805
 GASOLINE ALLEY, FORT DRUM, NEW YORK
 FALL 2006





**GROUNDWATER BTEX PLL
AREA 2140
AAFES STATION, FORT DRUM, N
FALL 2006**

PROJECT MGR: TP	DESIGNED BY: BSM/JAM	CREATED BY: BSM/JAM	CHECKED BY: JAM	SCALE: AS SHOWN	DATE: JUNE 2007	PROJECT NO: 6155802	DATE: FEBRUARY 2007
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