2009
Periodic Review Report
Davis-Howland Oil Corporation Site
NYSDEC Site No. 8-28-088

City of Rochester
Monroe County, New York

April 2010

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7013

Prepared by:

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.
368 Pleasant View Drive
Lancaster, New York 14086

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List of Abbreviations and Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethyl benzene, and xylene
CAS	Columbia Analytical Services, Inc.
CATOX	catalytic oxidation
CHI	Clean Harbors, Inc., or Clean Harbors of Kingston
COCs	chemicals of concern
cVOCs	chlorinated volatile organic compounds
DER	(NYSDEC) Division of Environmental Remediation
DHOC	Davis-Howland Oil Corporation
EEEPC	Ecology and Environment Engineering, P.C.
EPA	(United States) Environmental Protection Agency
FS	feasibility study
gpm	gallons per minute
IC/EC	institutional controls and engineering controls
µg/L	micrograms per liter
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	operations and maintenance
OM&M	operations, maintenance, and monitoring
OU	operable unit
PAHs	polycyclic aromatic hydrocarbons

List of Abbreviations and Acronyms (cont.)

PCBs	polychlorinated biphenyls
PCE	perchloroethylene or tetrachloroethene
PRR	Periodic Review Report
Popli	Popli Consulting Engineers and Surveyors, P.C.
PVC	polyvinyl chloride
RI	remedial investigation
ROD	record of decision
SMP	Site Management Plan
SVE	soil vapor extraction
sVOCs	semi-volatile organic compounds
TCE	trichloroethylene
VOCs	volatile organic compounds

Site Certification Form (Enclosure)
Davis-Howland Oil Company Site
NYSDEC Site Number 8-28-088

Enclosure 1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 828088

Site Name Davis-Howland Oil Corporation

Site Address: 200 ANDERSON AVENUE Zip Code: 14607

City/Town: Rochester

County: Monroe

Current Use: Structure

Intended Use:

Verification of Site Details **Box 2**

	YES	NO
1. Are the Site Details above, correct?	☒	☐
If NO, are changes handwritten above or included on a separate sheet?	☐	NA
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment since the initial/last certification?	☐	☒
If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property since the initial/last certification?	☐	☒
If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
4. Has a change-of-use occurred since the initial/last certification?	☐	☒
If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
5. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), has any new information revealed that assumptions made in the Qualitative Exposure Assessment for offsite contamination are no longer valid ?	☐	☐ NA
If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	☐	
6. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), are the assumptions in the Qualitative Exposure Assessment still valid (must be certified every five years) ?	☐	☐ NA
If NO, are changes in the assessment included with this certification?	☐	

SITE NO. 828088 Box 3

Description of Institutional Control **Control Certification**

YES NO

DAVIS-HOWLAND OIL CORP
0192-200 Anderson Avenue
Deed Restriction
S_B_L Image: 106.840-0001-006.000
Ground Water Use Restriction ☐ ☐

Box 4

Description of Engineering Control **Control Certification**

YES NO

Attach documentation if IC/ECs cannot be certified or why IC/ECs are no longer applicable.
(Also see instructions)

Control Description for Site No. 828088

Control Certification Statement

For each Institutional or Engineering control listed above, I certify by checking "Yes" that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(d) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control.

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

IC/EC CERTIFICATIONS
SITE NO. 828088

Box 5

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ______________________ at New York State Department of Environmental Conservation 625 Broadway, Albany, New York 12233,
print name / print business address

am certifying as ______________________(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

______________________ ______________
Signature of Owner or Remedial Party Rendering Certification — Date

Box 6

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information and statements in Box 4 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerald A. Strobel at Ecology and Environment Engineering, P.C. 368 Pleasant View Drive, Lancaster, NY 14086,
print name / print business address

am certifying as a Qualified Environmental Professional for the Davis-Howland Oil Company Site

(Owner or Remedial Party) for the Site named in the Site Details Section of this form.

Gerald Strobel
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

STATE OF NEW YORK — GERALD A. STROBEL, P.E. — 044479-1 — LICENSED PROFESSIONAL ENGINEER

Stamp (if Required) — Date 4/19/10

1 Introduction and Background

This Periodic Review Report (PRR) for the Davis Howland Oil Corporation (DHOC) Site provides information on the operations, maintenance, monitoring, compliance, and operating costs for calendar year 2009. Enclosure 1 provides the site certification that the engineering and institutional controls on site have been effective thus far in facilitating the remedial cleanup of the site.

The chlorinated volatile organic compound (cVOC) contaminant plume extends beyond the immediate DHOC treatment system facility. Therefore, this PRR includes information on the following systems and locations in the city of Rochester, Monroe County, New York, which are collectively operated, maintained, and monitored under the overall DHOC Work Assignment:

- The DHOC remedial treatment system located at 200 Anderson Avenue (see Figure 1-1)
- The adjacent parcels at 190 through 220 Anderson Avenue
- The parcel at 176 Anderson Avenue
- The groundwater pumping and monitoring network

1.1 Site Description

The DHOC site is located at 200 Anderson Avenue, in Rochester, New York. The site also encompasses adjacent parcels described as 190 through 220 Anderson Avenue and the portion of 176 Anderson Avenue immediately north and west of 190 through 220 Anderson Avenue. The site is bounded on the south by Anderson Avenue, on the west by light industrial/commercial/retail buildings, and on the north and east by a CSX Transportation right-of-way with active tracks. Figure 1-1 indicates the general location of the site.

The approximately 1-acre site is located in an area that combines residential, commercial, and industrial facilities. No significant surface water is located in the immediate vicinity of the site. Figure 1-2 presents the general site layout, and a more detailed site layout map is provided as Appendix A.

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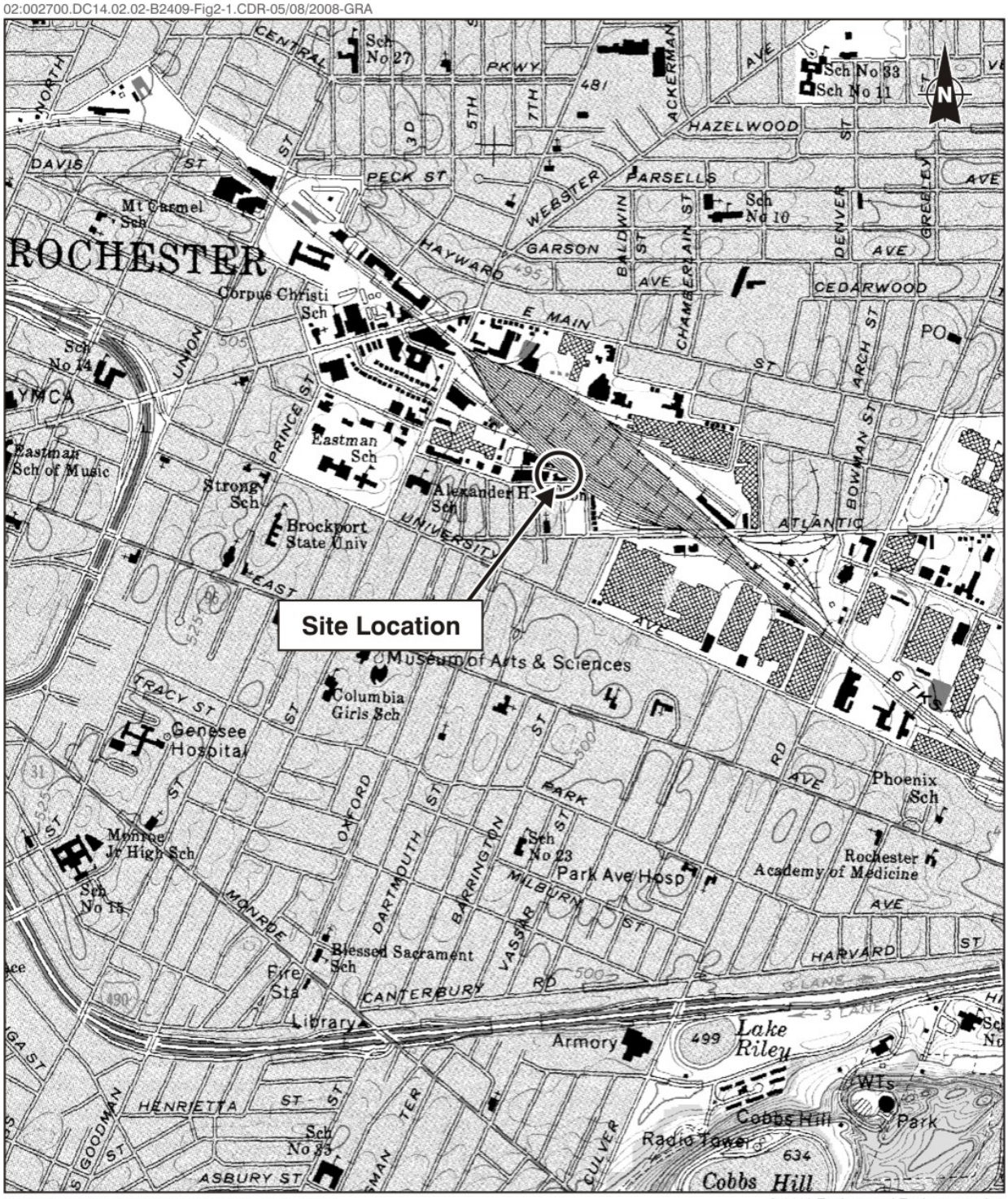


MAP SOURCE: USGS Topographic 7.5 Minute Series, Rochester East Quadrangle, Monroe County, New York

Figure 1-1 General Site Location Map, Davis-Howland Oil Corporation Site, Rochester, New York

N

AREA A

1 STY. BLOCK WAREHOUSE BLDG

TREATMENT FACILITY

STERN PROPERTY

CONRAIL/CSX PROPERTY

APPROXIMATE LOCATION OF RAILROAD

TWO-STORY BLDG
G STERN
176-186 ANDERSON AVE
TAX ID 106.84 1-4.001

ALLEY

DAVIS HOWLAND PROPERTY

190, 192, 220 ANDERSON AVE
TAX ID 106.84 1-6

AREA C

FORMER ASPH. PARKING

ROW

ROW

ANDERSON AVE.

FAIRMOUNT AVE.

AREA B

169-173 ANDERSON
BROWNELL
TAX ID 121.28-2-1

183-185 ANDERSON
SAMILLE INC.
TAX ID 121.28-2-4

NORWOOD ST.

LEGEND

- EXCAVATION AREAS
- PROPERTY LINE OR RIGHT-OF-WAY (ROW)
- FENCING
- GUARD RAIL
- RAILROAD TRACKS
- AS/SVE TREATMENT ZONE

0 60 120

SCALE IN FEET

FIGURE 1-2

SITE LAYOUT MAP
FORMER DAVIS-HOWLAND
CORPORATION SITE

2 Remedial Systems Compliance

In 2009, remedial operating units associated with the DHOC site were in compliance with the operating or permit requirements for remedial treatment. Information regarding compliance of the individual remedial operating units is presented in the following subsections.

2.1 Groundwater Treatment

In 2009, all treatment and effluent discharge parameters were in compliance while processing treated groundwater. Table 2-1 presents the permit criteria currently used for the discharge of treated groundwater at the DHOC site.

Table 2-1 Effluent Discharge Criteria, DHOC Site

Parameter	Analytical Methods	Permit Limits
Flow (average discharge); based on effluent meter	–	Not to exceed 28 gpm
pH (SU)	MCAWW 150.1	5.0-12.0
PCBs	40 CFR 136 - 608	bdl (0.3 ppb)
Total petroleum hydrocarbons	NYSDOH 75 310-13	100 ppm
Purgeable halocarbons	40 CFR 136 - 601	The analytical summation of this group of contaminates shall not exceed 2.13 ppm in the effluent discharge.
Purgeable aromatics	40 CFR 136 - 602	
Acid extractables	40 CFR 136 - 625	
Base neutrals		
Pesticides	40 CFR 136 - 608	
Total monthly discharge	–	NA

Key:

= PCBs removed from the permit analyte list on October 28, 2006.

= Pesticide analysis performed on a semi-annual basis.

bdl = Below detection limit.
CFR = Code of Federal Regulations.
gpm = Gallons per minute
MCAWW = (EPA) Methods for Chemical Analysis of Water and Wastes.
NA = Not applicable.
NYSDOH = New York State Department of Health.
ppm = Parts per million.
SU = Standard units.

3 Evaluation of Site Institutional and Engineering Controls

Both site institutional and engineering controls are employed on the DHOC site to support remedial operations.

3.1 Institutional Controls

A permanent easement that provides access to the CSX Transportation property has been obtained to facilitate operation of the DHOC site remedial treatment system. In addition, access to the 200 Anderson Avenue property has been obtained under a Consent Order with the owner (Mr. R. Klepper), which will facilitate the continued operation of the remedial treatment system and underground equipment. The existing permanent easement for the CSX property is adequate at this time, but if additional wells are installed as part of improvements to the groundwater monitoring well system, additional permanent easements may be required. A permanent environmental easement and/or deed restriction is also recommended for the remedial site to reduce the potential for direct human contact with the site's contaminated soils. The buildings and property north of Anderson Avenue and the parcel to the south of Anderson Avenue should be included in this easement and/or deed restriction. Some occupants in the buildings have restricted the access needed by EEEPC and its operation, maintenance, and monitoring (OM&M) subcontractor, Popli Consulting Engineers and Surveyors, P.C. (Popli), to inspect the remedial equipment. This issue must be resolved with either the building manager or the property owner, as unrestricted access to these areas is needed to maintain the remedial equipment.

There are 18 operable monitoring wells in the groundwater monitoring well network around the DHOC site. Four of the 18 monitoring wells are located on the DHOC property (CHI-1, MW-1S, MW-5R, and MW-9S), two are in the public highway right-of-way (MW-10R and MW-15R), and nine are located on the CSX property easement (CHI-6, MW-2S, MW-12S, MW-13S, MW-14S, MW-2R, MW-8R, MW-12R, and MW-14R). The three remaining monitoring wells (MW-3S, MW-3R, and MW-16R) are located in the parking lot south of Anderson Avenue. It is unknown whether access agreements to facilitate the future maintenance and monitoring of these wells were previously obtained as part of the remedial investigation/feasibility study (RI/FS) for this parcel. The locations of these monitoring wells are identified in the *2009 Long-term Groundwater Sampling and Data Summary Report* (EEEPC 2009).

3.2 Engineering Controls

The engineering controls that support remedial operations at the site are consistent with the Site Management Plan (SMP) regarding operation and maintenance of the site. The only change since the previous PRR was the mobilization of the CATOX unit to an off-site location on March 11, 2009, by NYSDEC's Callout Contractor (AzTech Environmental, Inc.; Ballston Spa, NY). The CATOX unit was decommissioned in September 2008 as per the manufacturer's directives. A new emissions stack was installed by OPTech Environmental, Inc. through Popli Engineering, P.C. and operations of the stack and remedial treatment system were initiated on September 18, 2008.

4 Evaluation of Remedial Treatment Operations

In 2009, the remedial operating units operated nearly continuously.

4.1 System Operational Uptime in 2009

The uptime operations percentages are calculated based on actual monthly hours of treatment system operations in the reporting period divided by the potential hours of operation in the reporting period.

Local power outages or equipment failure do affect operation of the remedial treatment system. To minimize these downtimes, the system has an auto-dialer that sends an alarm to the OM&M subcontractor and EEEPC if an equipment failure occurs. In addition, the treatment facility can be called at any time at (585) 241-3431, unless phone service is down, to check on the status of the various operating equipment in the building.

In 2009, based on information from the weekly OM&M reports from the subcontractor, the remedial treatment system operated 8,434.5 hours out of a possible 8,685.5 hours, for an uptime operation of approximately 97.1%. This is an increase of about 50% over the system uptime operations in 2008, which was lower due to the CATOX system being shut down in 2008 for decommissioning. Downtime occurred in January when the Equilization (EQ) tank transfer pump was switched from "auto" to "manual" during an O&M check and not switched back to "auto" at the end of the day, as a result of operator error. This caused the EQ tank's low-level alarm to go off and the system to shut down until the O&M contractor's next site visit approximately one week later. In July, downtime resulted when a severe thunderstorm caused a power outage in the area, shutting the system down for 14 hours. Table 4-1 provides details on the monthly operation of the treatment system.

Table 4-1 DHOC Site Remedial Treatment System Uptime in 2009

Reporting Period	Reporting Hours/ Maximum Hours	Operational Uptime (%)
January 6 through February 6, 2009	504.5/741.5	68.0
February 6 through March 5, 2009	648/648	100
March 5 through April 2, 2009	672/672	100
April 2 through May 6, 2009	816/816	100

Table 4-1 DHOC Site Remedial Treatment System Uptime in 2009

Reporting Period	Reporting Hours/ Maximum Hours	Operational Uptime (%)
May 6 through June 4, 2009	696/696	100
June 4 through July 6, 2009	768/768	100
July 6 through August 5, 2009	706/720	98.1
August 5 through September 3, 2009	720/720	100
September 3 through October 2, 2009	696/696	100
October 2 through November 5, 2009	840/840	100
November 5 through December 3, 2009	696/696	100
December 3 through December 31, 2009	672/672	100
Total Hours of Operation in 2009	**8,434.5 / 8,685.5**	**97.1**
Average Percentage of Operational Uptime in 2009		**97.2**

4.2 Groundwater Processed and Discharged through the Remedial Treatment System in 2009

The amount of groundwater processed and discharged is read directly from the effluent discharge meter located after the air-stripper unit. Readings are taken weekly at the master discharge meter and then calculated for each monthly reporting period.

Based on information obtained from the weekly monitoring reports from the OM&M subcontractor, the remedial treatment system processed and discharged 891,070 gallons of treated groundwater to the Monroe County sanitary sewer system from January 6 to December 31, 2009 (see Table 4-2). The increase in total discharge flow in 2009 over that of 2008 was due, in part, to the shutdown of the remedial treatment unit from March 11 to September 18, 2008, for decommissioning of the CATOX unit and installation of the new emission stack. In addition, the discharge flow during the second half of 2009 increased as a result of the pumping well rehabilitation work performed in June and July 2009. The work involved purging the pumping wells and pump rehabilitation/replacement. This work was performed after an evaluation of the flows from January to May 2009 indicated that significantly higher flows could be achieved.

Table 4-2 Groundwater Processed and Discharged by the Remedial Treatment System in 2009

Month	Actual Period	Gallons Treated
January 2009	1/6/09 to 2/6/09	32,733
February 2009	2/6/09 to 3/5/09	62,000
March 2009	3/5/09 to 4/2/09	48,986
April 2009	4/2/09 to 5/6/09	43,955
May 2009	5/6/09 to 6/4/09	35,237
June 2009	6/4/09 to 7/6/09	37,491
July 2009	7/6/09 to 8/5/09	25,233
August 2009	8/5/09 to 9/3/09	103,757

Table 4-2 Groundwater Processed and Discharged by the Remedial Treatment System in 2009

Month	Actual Period	Gallons Treated
September 2009	9/3/09 to 10/2/09	131,731
October 2009	10/2/09 to 11/5/09	148,174
November 2009	11/5/09 to 12/3/09	108,000
December 2009	12/3/09 to 12/31/09	113,773
Total Gallons Treated in 2009:		**891,070**

4.3 Chlorinated Volatile Organic Compounds (cVOCs) Removed from Groundwater in 2009 (Air Stripping Operations)

The amount of cVOCs removed from the groundwater is estimated based on the influent and effluent analytical results, the amount of groundwater processed through the treatment system, and the uptime of the system. Based on calculations prepared by EEEPC on the operation of the remedial treatment unit from January 2009 to December 2009, approximately 9.713 pounds of cVOCs were removed from the groundwater by the remedial treatment system in 2009 (see Table 4-3).

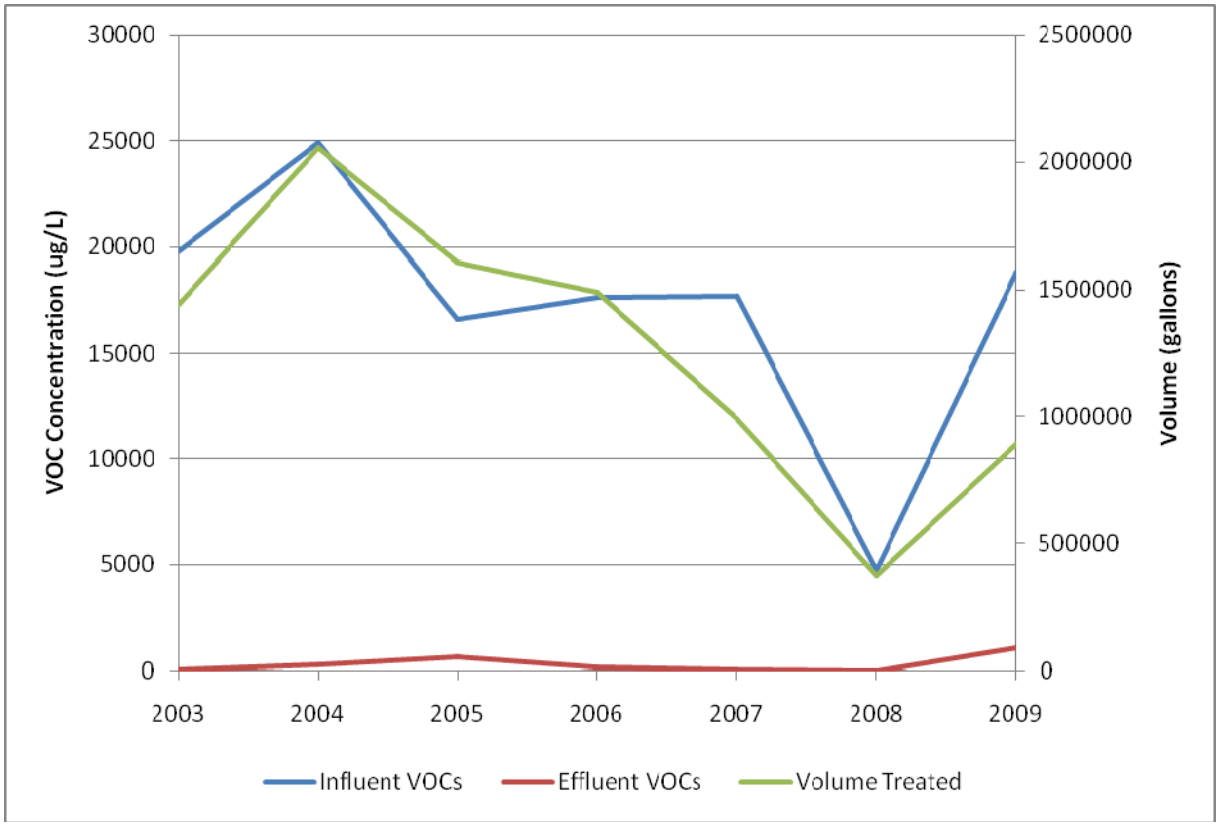
Table 4-3 cVOCs Removed from Groundwater by the DHOC Site Remedial Treatment System in 2009

Month	Actual Period	Influent cVOCs (µg/L)	Effluent cVOCs (µg/L)	Removal Efficiency (%)	cVOCs Removed (pounds)
January 2009	1/6/09 to 2/6/09	2942.00	2.4	99.92	0.787
February 2009	2/6/09 to 3/5/09	3979.00	0.00	100	1.906
March 2009	3/5/09 to 4/2/09	2899.00	11.2	99.61	1.171
April 2009	4/2/09 to 5/6/09	2311.00	350.70	84.82	0.733
May 2009	5/6/09 to 6/4/09	410.20	51.80	87.37	0.098
June 2009	6/4/09 to 7/6/09	310.80	76.60	75.35	0.070
July 2009	7/6/09 to 8/5/09	329.40	100.90	69.37	0.045
August 2009	8/5/09 to 9/3/09	474.40	321.40	32.25	0.099
September 2009	9/3/09 to 10/2/09	462.50	164.50	64.43	0.280
October 2009	10/2/09 to 11/5/09	664.0	4.10	99.38	0.874
November 2009	11/5/09 to 12/3/09	751.00	12.00	98.40	0.551
December 2009	12/3/09 to 12/31/09	3289.00	11.00	99.67	3.099
				Total	**9.713**

Key:
cVOCs = Chlorinated volatile organic compounds.
µg/L = Micrograms per liter.

Figure 4-1 shows the historical treatment trend for the DHOC site from 2003 through 2009. Since 2003, the concentration of cVOCs in the influent of the system and the cVOC concentration in the effluent have generally decreased, indicating that cVOC concentrations are decreasing due to the treatment system. The increase in 2009 over 2008 is partially due to the treatment system being shut-

down from March through September 2008 due to the removal of the CATOX system and the pump rehabilitation/replacement system which occurred in August 2009 and increased the volume of groundwater that was being processed.



Note:

1. Deactivation of CATOX unit occurred in March 2008, requiring the treatment system to be shut down for five months.
2. Pump rehabilitation/replacement occurred in August 2009.

Figure 4-1 Historical Treatment Trends, 2003-2009

4.4 Groundwater Treatment in 2009

The effluent from the remedial treatment system met the discharge permit requirements (Appendix B) for each month of 2009. Table 4-4 presents a summary of the monthly analytical results for the treated effluent and compares them to the Monroe County discharge permit limits.

Monroe County performed its yearly sampling on August 5, 2009.

Table 4-4 2009 Monthly Compliance Results for Treated Groundwater Effluent, DHOC Site

Month	Average Effluent (gpm)	pH (SU)	Total Petroleum Hydrocarbons (ppm)	Purgeable Halocarbons, Purgeable Aromatics, Acid Extractables, Base Neutrals, and Pesticides (ppm)	Permit Compliance
Discharge Permit Limits	**28**	**5.0-12.0**	**100**	**2.13**	
January	1.06	8.39	ND	0.0000024	Yes

Table 4-4 2009 Monthly Compliance Results for Treated Groundwater Effluent, DHOC Site

Month	Average Effluent (gpm)	pH (SU)	Total Petroleum Hydrocarbons (ppm)	Purgeable Halocarbons, Purgeable Aromatics, Acid Extractables, Base Neutrals, and Pesticides (ppm)	Permit Compliance
February	1.49	8.18	ND	0.0000000	Yes
March	1.22	8.25	ND	0.0000112	Yes
April	0.9	7.99	ND	0.0003507	Yes
May	0.85	8.15	ND	0.0000518	Yes
June	0.85	7.94	ND	0.0000766	Yes
July	0.62	8.00	ND	0.0001009	Yes
August	2.35[1]	7.53	ND	0.0003214	Yes
September	3.11[1]	8.06	ND	0.0001645	Yes
October	3.15[1]	8.42	ND	0.0000041	Yes
November	2.14[1]	8.27	ND	0.0000120	Yes
December	2.81[1]	8.32	ND	0.0000110	Yes

Note:
[1] The increase in influent/effluent volumes processed was due to purging and cleaning of the five groundwater pumping locations (three shallow wells [10 to 20 feet deep] and two bedrock wells [30 to 40 feet deep]).

Key:
gpm = Gallons per minute.
ND = Not detected.
ppm = Parts per million.
SU = Standard units.

4.5 Groundwater Monitoring Well Sampling Results in 2009

In 2009, the following five cVOCs were detected in overburden groundwater samples at levels that exceed the NYSDEC Class GA groundwater standards: 1,1,1-TCA, 1,1-DCA, cis-1,2-DCE, PCE, and TCE. Similarly, the following six cVOCs were detected in bedrock groundwater samples at levels that exceed the NYSDEC Class GA groundwater standards: 1,1-DCA, 1,1-DCE, cis-1,2-DCE, TCE, and VC. The highest concentrations of cVOCs and BTEX continue to be detected in the bedrock groundwater.

5 General Status of Remedial Treatment Equipment Oversight Activities

In 2009, OM&M of the DHOC site remedial treatment system was performed on a weekly basis by EEEPC's OM&M subcontractor, Popli Engineering. In the event of a major component malfunction at the site, an auto-dialer primary contact alarm alerts the OM&M subcontractor of the problem and a secondary alarm alerts EEEPC.

Monthly compliance reporting on the OM&M work performed on the remedial treatment system is performed by EEEPC. When equipment repairs are required, the OM&M subcontractor reports the needed repairs to EEEPC, and EEEPC reports them to NYSDEC. Information regarding repairs performed on the remedial treatment system components is provided in the weekly OM&M report submitted to EEEPC and in a monthly report submitted to NYSDEC.

All equipment issues are handled on a case-by-case basis. Major equipment issues are discussed with the NYSDEC project manager, and a corrective action approach is developed. Upon acceptance, the corrective action is initiated. Minor equipment and electronic maintenance, repair, and replacement costs are funded through the contingency task established when the project was initiated.

Analytical services for the DHOC site are provided by Columbia Analytical Services, Inc. (CAS). The analytical frequency matrix is provided in Table 5-1.

Table 5-1 Analytical Frequency Matrix, DHOC Site

	Groundwater	Air	Schedule
Treatment System	X	NA	Monthly
Groundwater Monitoring Wells Network	X	NA	Yearly

5.1 Remedial Treatment Condition, Replacement, and Repairs in 2009

Major components of the remedial treatment operations, including the chemical sequestering system, equalization tank, bag filters, blowers, air-stripping unit, and groundwater pumping system, continue to operate at a high rate of efficiency as a result of the weekly monitoring and maintenance program.

The groundwater pumping network remains in working condition. Items that have had higher maintenance requirements over the last few years have been the pumps and the level transducers for the groundwater pumping system. These two active components have been in operation for over five years and are subject to harsh conditions. The groundwater pumps and transducers have an anticipated life expectancy of approximately two to three years. Replacement pumps and replacement transducers are, therefore, kept on hand for quick replacement after failure or even pre-emptive replacement.

In June and July, pump cleaning, well conditioning, and/or pump replacement was reviewed as part of the pump rehabilitation program. In August, the pumps in wells P-1 and PW-1 were replaced and the wells were reconditioned. These actions increased the amount of groundwater pumped to the plant by more than 100%.

Repair and replacement work performed on the DHOC site treatment system in 2009 is identified in Table 5-2.

Table 5-2 DHOC Site Equipment Repair and Replacement Program 2009

Activity	Completion Date
Pulse pump fixed	January
CATOX unit removed from site	March
Heat exchanger piping sealed	May
Rewired groundwater pump P-1	July
P-1 pump motor replaced	August
PW-1 pump replacement completed	August
Air sparge blower replaced	August
Relief valve on air sparge blower replaced	August

The air sparge blower was found to be not operational on August 14. Repairs to replace the air sparge blower were initiated the same day, but repairs were not completed until August 17. On August 19, EEEPC's subcontractor had to replace the ¾-inch relief valve on the sparge blower. The air sparge system was back in operation and functionally normally that same day.

5.2 Groundwater Monitoring Well Network

Long-term groundwater sampling was performed in May 2009. EEEPC conducted an inspection of all shallow and bedrock groundwater monitoring wells. The purpose of these inspections was to determine and document the physical condition of the wells and to identify maintenance actions required to keep the groundwater monitoring well network operational. Based on the inspection, it was determined that the groundwater monitoring wells were in good condition, but some of the shallow wells were dry (see Table 5-3).

Table 5-3 Summary of August 2009 Well Inspection, DHOC Site

Well No.	Date Inspected	PVC Well Casing ID (inches)	Inspection Observations
CHI-1	5/13/09	2	Dry, soft bottom
CHI-6	5/13/09	2	Dry, soft bottom
MW-1S	5/13/09	2	Operational/good
MW-2S	5/13/09	2	Soft bottom
MW-3S	5/13/09	2	Soft bottom
MW-9S	5/13/09	2	Soft bottom
MW-12S	5/13/09	2	Operational/good
MW-13S	5/13/09	2	Soft bottom
MW-14S	5/13/09	2	Soft bottom
MW-2R	5/13/09	4	Dry, soft bottom
MW-3R	5/13/09	2	Soft bottom
MW-5R	5/13/09	4	Operational/good
MW-8R	5/13/09	4	Soft bottom
MW-10R	5/13/09	4	Soft bottom
MW-12R	5/13/09	4	Soft bottom
MW-14R	5/13/09	4	Soft bottom
MW-15R	5/13/09	4	Operational/good
MW-16R	5/13/09	4	Soft bottom

Key:
CHI = Clean Harbors, Inc.
ID = Inner diameter.
MW = Monitoring well.
PVC = Polyvinyl chloride.

6 Actions to Support Eventual Site Closure

The overall project goals are to reduce the concentrations of cVOCs in the soils beneath the capped or paved area north of the DHOC buildings on Anderson Avenue and reduce the concentrations of cVOCs in the contaminated groundwater plume to below the groundwater standards established by NYSDEC. Attaining these goals will allow for the eventual closure of the bedrock groundwater recovery system and overall remedial treatment system. Suggested future actions or modifications that would improve individual operations and shorten the time required to attain the target cVOC concentrations are presented below.

6.1 Efforts to Support Site Closure

When in operation in 2009, the groundwater treatment system operated efficiently. Based on a review of the reported analytical data for the long-term groundwater monitoring program from January 1997, September 1998, May 2004, August 2007, and May 2009, cVOC concentrations have decreased with time. The next evaluation of the site groundwater will be performed in spring 2010.

More specifically, polycyclic aromatic hydrocarbons (PAHs) are no longer present at concentrations exceeding NYSDEC's groundwater standards. BTEX (benzene, toluene, ethyl benzene, and xylene) concentrations have declined significantly in the bedrock groundwater and are no longer detected in some wells where they were previously present. Only MW-5R contained concentrations of BTEX compounds above detection limits in 2009.

Based on the observed changes in the distribution of the VOC contamination beneath the site, the groundwater treatment system, in conjunction with natural processes, appears to be effective at reducing overall contaminant concentrations.

The results of the long-term monitoring program indicate that the contaminant plume is migrating to the northeast of the DHOC site, toward the CSX Transportation property. Continued monitoring of the groundwater well network and rehabilitation of groundwater and/or pumping wells on a regular basis is recommended to maintain a high pumping rate for treatment.

6.2 Effluent Discharge Permit Contaminant Parameter Relief

Based on the monthly sampling results, EEEPC feels that discharge permit contaminant parameter relief should be given for pesticides and total petroleum hydrocarbons (TPH). Pesticides have not been detected in the influent or effluent samples for the past three semi-annual sampling events. TPH has not been detected in the influent or effluent samples for the past year.

7 Annual Remedial Action Costs

The approximate 2009 costs of OM&M of the remedial treatment system at the DHOC site, including equipment in the treatment trailer, the groundwater pumping system, long-term groundwater monitoring network, EEEPC oversight, subcontracted services, replacement equipment, and utilities, are presented in Table 7-1.

The total 2009 cost for operating the remedial treatment system at the DHOC site was $142,946.46.

Table 7-1 2009 Remedial Action Costs, DHOC Site

Description	WA DC14 Total ($)
DEC Operations	$8,313.64
Sub – OM&M Services	$34,869.16
Sub – Analytical Services	$9,920.00
Utilities – Electric	$7,427.92
Utilities – Gas[1]	$0.00
Utilities – Telephone	$346.19
Replacement Equipment	$3,794.36
Long-term Monitoring Program	$37,345.49
EEEPC Admin, Management, and Reporting	$40,929.70
2009 Grand Total	**$142,946.46**

Note:
[1] No future gas use anticipated; the CATOX unit was removed from the site in March 2009.

8 Department or Local Public Reporting

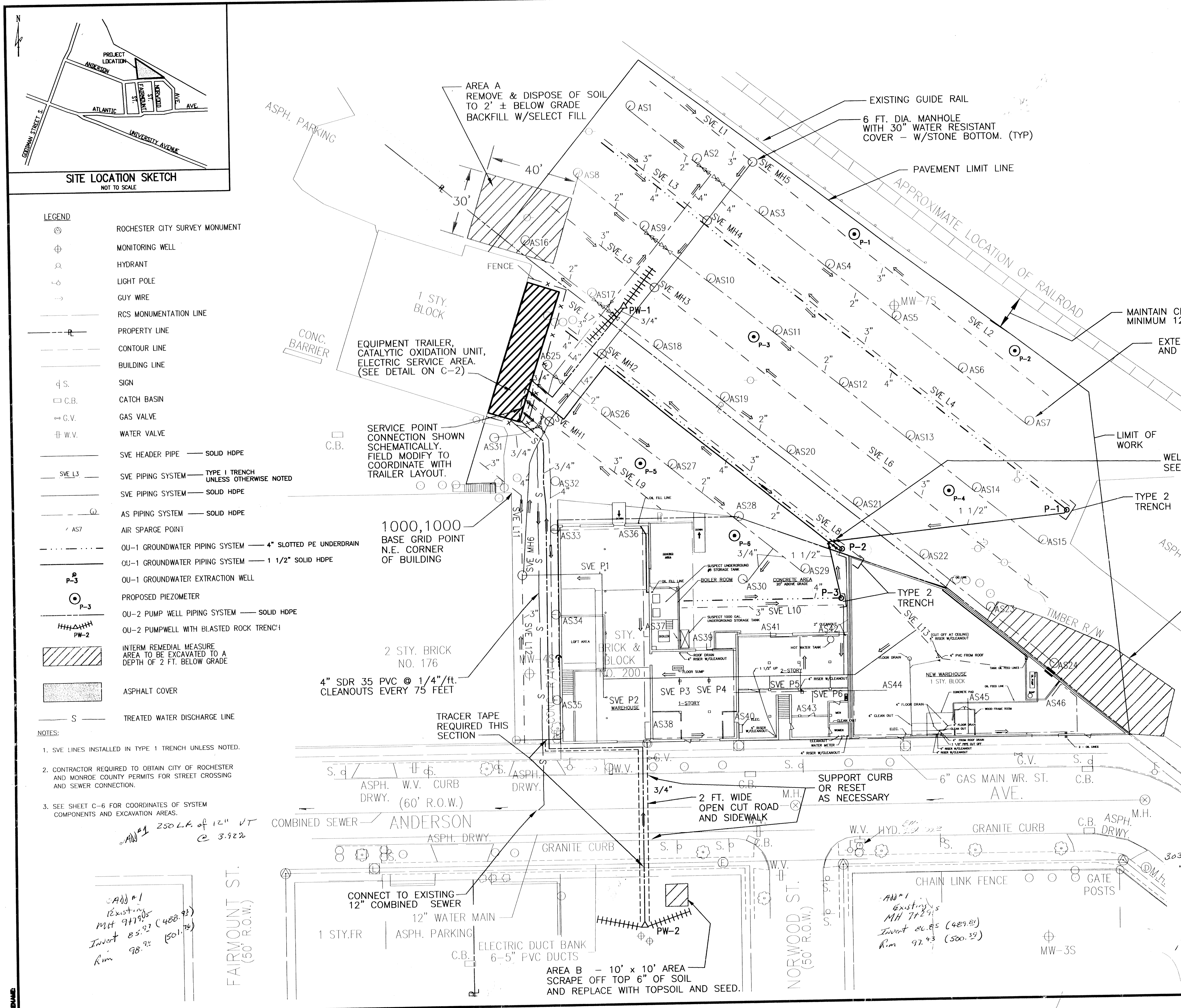
8.1 NYSDEC Fact Sheet

The most recent NYSDEC Fact Sheet was issued by NYSDEC in June 2009 and can be found in Appendix C.

8.2 Local Public Reporting

No local public reporting of the site or remedial site operations was noted in 2009. The local reporting newspaper in Rochester, New York, is the *Democrat and Chronicle*.

A Additional Site Map



ADD #1

* LATERAL RISER CONNECTION – FIG. 8A
* 4" OR 6" CLEANOUT DETAIL FOR LATERAL CONNECTION – FIG. 9D (SEE C-6A)

b. *DRAWING C-1*:

The invert of the manhole at the intersection of Anderson Avenue and Norwood Street based on the drawing's relative datum is 86.85; the rim elevation is 97.43. (From the Record Drawings for the Anderson Avenue Street Improvement Project dated 5/5/87, the elevations are: invert 489.81, rim 500.39, manhole station 7+29.5. The invert elevations match those shown on the MCPW Mile Square Map 96.)

The invert of the manhole at the intersection of Anderson Avenue and Fairmount Street based on the drawing's relative datum is 85.97; the rim elevation is 98.80. (From the Record Drawings for the Anderson Avenue Street Improvement Project 5/5/87 the elevations are: invert 488.93, rim 501.76, manhole station 9+79.5. The invert elevations match those shown on the MCPW Mile Square Map 96.)

The Norwood Street manhole is connected to the Fairmont Street manhole with 250-feet of 12" V.T. Pipe installed at a 3.92% slope.

Treated discharge from the treatment unit to the storm sewer tie in must be in accordance with the contract documents and with Chapter 40, City of Rochester Plumbing Code. The Contractor will be responsible for obtaining and paying all fees associated with a plumbing permit from the City of Rochester. The City of Rochester Plumbing Department Contact is:

Mr. Bob Thomas, Lead Plumbing Inspector
City of Rochester, Department of Commercial Development
City Hall, Room 122B
30 Church Street
Rochester, NY 14614

Tel: (716) 428-6576

The Contractor will also be responsible for obtaining and paying all fees associated with a tie in and discharge permits from the MCDES. The MCDES contacts are:

For Tie-In Permit:	**For Discharge Permit:**
Mr. Thomas Posella 444 E. Henrietta Rd. Rochester, NY 14620	Mr. Michael Kirchgessner 444 E. Henrietta Rd. Rochester, NY 14620
Tel: (716) 760-7578	Tel: (716) 760-7054

303 Con't ADD #3

"C. The information regarding onsite bench mark (datum) controls is as follows:

1) for BM -1 (hydrant) the measurement was taken from the top shut-off nut (high point of hydrant) located on the SE corner of the intersection of Anderson Ave. and Norwood St. The relative datum elevation on the top of the hydrant is listed as 100.00'.

2) for BM-2 (west of CSX asphalt parking area) the measurement was taken from P.K. nail in the south face of the utility pole on CSX property. The relative datum elevation is listed on the south side of the CSX pole as 95.60'.

3. Copies of the Popli, P.C. survey dated September 1999 will be provided to the Contractor after Notice to Proceed is given by NYSDEC."

NO.:	DATE:	DESCRIPTION: REVISIONS	BY:

DESIGNED BY: DCA
DRAWN BY: DSS
CHECKED BY:
APPROVED BY:

ENSR
...NGINEERING NEW YORK
CONSULTING • ENGINEERING • REMEDIATION
360 LINDEN OAKS • ROCHESTER, NEW YORK 14625
PHONE: (716) 381-22.. FAX: (716) 381-5392

..ORK STATE DEPARTMENT ..RONMENTAL CONSERVATION
28-088 CONTRACT NO. D004181

AS / SVE SITE PLAN
DAVIS-HOWLAND OIL CORP.
REMEDIATION PROJECT
200 ANDERSON AVENUE
ROCHESTER, NEW YORK

SCALE:	DATE:	PROJECT NUMBER:
1" = 20'	8/2000	

DRAWING NUMBER: C-1

SHEET NUMBER: 986265C1.DWG

B

County of Monroe Discharge Permit (2007–2010)

COUNTY OF MONROE
SEWER USE PERMIT RENEWAL

Check # 124524

Environmental Remediation

Firm Name: NYSDEC Div. of ~~Remedial Const.~~
200 Anderson Avenue

Permit Number: 864
Fee: $ 75.00
Expires: 5-31-2010

Mailing Addr: 625 Broadway, 12th Floor
Albany, NY 12233-7013

W/C Expire: 1-1-2008
District No: 8520

Business Type: Groundwater Remediation

Has there been any revision to the plant sewer system or any change in industrial wastes discharged to the public sewer in the past twelve months

Yes: __ No: X If yes, please explain in a separate letter.

Average monthly consumption for the past twelve (12) months:

Water Account No.(s) NONE (cu ft/gal) —

In consideration of the granting of this renewal permit the undersigned agrees to comply with all the requirements in the Initial Permit as listed under II.

Name of person to be contacted for inspection & sampling purposes:

Type or Print: MICHAEL STEFFAN Phone No: (716) 684-8060

YOUR PERMIT MUST BE SIGNED AS FOLLOWS:

1. For a corporation: by a responsible corporate officer. A corporate officer means:
   (a) A president, secretary, treasurer or vice - president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision - making functions for the corporation: or
   (b) The manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second - quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3. By a duly authorized representative of the individual designated in items (1) or (2) above if:

   (a) The authorization is made in writing by the individual described in items (1) or (2);
   (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; (A duly authorized representative may thus be either a named individual or any individual occupying named position); and
   (c) The written authorization is submitted to this Department.

Print or Type: WILLIAM B. WELLING Phone No: (518) 402-9638

Signature: William B. Welling Date: 4/12/07

Title: Engineering Geologist 2 NYSDEC

Renewal Approved: John E Graham PE Date: 5/21/2007
(Director of Pure Waters)

COUNTY OF MONROE
SEWER USE PERMIT ENCLOSURE

NYSDEC Division of Environmental Remediation
Davis Howland Oil Co. Site (Rochester ,NY)
625 Broadway, 12th Floor
Albany, NY 12233-7013

PERMIT NUMBER: 864
DISTRICT NUMBER: 8520

TYPE OF BUSINESS: Groundwater Remediation
SIC CODE: N/A
SAMPLE POINT: Sample Port – air stripper

REQUIRED MONITORING & EFFLUENT LIMITS

SELF-MONITORING FREQUENCY: **Monthly**

SAMPLING PROTOCOL: Sampling and analysis shall be performed in accordance with the techniques prescribed in 40CFR part 136 and amendments thereto. In the absence of 40 CFR Part 136 testing methodology, a New York State Department of Health, approved method is acceptable. A grab sample, collected from the above noted sample point shall be analyzed for the following:

Parameter	**Limit**
pH	5.0-12.0
acetone	action level (monitor only)
Total Petroleum Hydrocarbons	100 ppm

---

*The analytical summation of this group shall not exceed 2.13 ppm.
purgeable halocarbons
purgeable aromatics
acid extractables
base neutrals

REQUIRED MONITORING & EFFLUENT LIMITS

SELF-MONITORING FREQUENCY: **Semi-Annual**

SAMPLING PROTOCOL: Sampling and analysis shall be performed in accordance with the techniques prescribed in 40CFR part 136 and amendments thereto. In the absence of 40 CFR Part 136 testing methodology, a New York State Department of Health, approved method is acceptable. A grab sample, collected from the above noted sample point shall be analyzed for the following:

Parameter	**Limit**
Pesticides	2.13ppm

---

*The analytical summation of this group shall not exceed 2.13 ppm. This includes all or a portion of this list for any one monitoring period.

purgeable halocarbons
purgeable aromatics
acid extractables
base neutrals
pesticides

SPECIAL CONDITIONS:

1. All groundwater must be treated regardless of the influent concentrations.
2. Monthly flow summaries shall be submitted for billing purposes. It is imperative these summaries are submitted in a timely manner.
3. Action Levels are levels at which Monroe County re-evaluates discharge parameters.

5-22-2007

TERMS AND CONDITIONS

GENERAL REQUIREMENTS:

A. The permittee agrees to accept and abide by all provisions of the Sewer Use Law of Monroe County and of all pertinent rules or regulations now in force or shall be adopted in the future.

B.1 In addition to the parameters/limits outlined, the total facility discharge shall meet all other concentration values as described in Article II, Section 10e of the Monroe County Pure Waters Districts, Rules and Regulations-Sewer Use Law of the County of Monroe.

B.2 Included in Article II, Section 10e, is the definition of "Normal Sewage". "Normal Sewage" may be discharged to the sewer system in excess of the concentrations outlined in the Joint Rules and Regulations, however, the facility will be subject to the imposition of a sewer surcharge and possible self monitoring requirements as a result. Surcharging procedures are outlined in Article X of the MCSUL.

B.3. Regulatory sampling for analytes not specified under "required monitoring" shall be conducted by the Industrial Waste Section at a minimum frequency of once every three (3) years.

C. This permit is not assignable or transferable. The permit is issued to a specific user and location.

D. Per Article VIII, Section 8.11 of the MCSUL, a violation by the permittee of the permit conditions may be cause for revocation or suspension of the permit after a Hearing by the Administrative Board, or if the violation is found to be within the emergency powers of the Director under Sections 4.5 or 5.5. The revocation is immediate upon receipt of notice to the Industrial User, however a Hearing shall be held as soon as possible.

E. As provided under Article VIII, Section 8.1, the Director and his duly authorized representatives shall gain entry on to private lands by permission or duly issued warrant for the purpose of inspection, observation, measurement sampling and testing in accordance with the provisions of this law and its implementing Rules and Regulations. The Director or his representatives shall not have authority to inquire into any processes used in any industrial operation beyond that information having a direct bearing on the kind and source of discharge to the sewers or the on-site facilities for waste treatment. While performing the necessary work on private lands, referred to above, the Director or his duly authorized representative shall observe all safety rules applicable to the premises as established by the owner and/or occupant.

SPECIAL CONDITION:

A. All required monitoring shall be analyzed by a New York State Department of Health certified laboratory. All sampling and analysis must be performed in accordance with Title 40 Code of Federal Regulations Part 136.

B. The pH range for this permit is 5.0 – 12.0 su. This range is specifically permitted by the Director as allowed under Article IV, Section 4.2 of the Monroe County Sewer Use Law. PH must be analyzed immediately.

C. The summation of all Toxic Organic Compounds as defined in the Code of Federal Regulations (40 CFR part 433.11(e)) with detection levels above 10 ug/l shall not exceed 2.13 mg/l as imposed by the Director under Article IV, Section 4.3 of the Monroe County Sewer Use Law unless Federal limits are more stringent under which the Federal limits will apply.

D. Petroleum Oil and Grease shall not exceed 100 mg/l as imposed by the Director under Article IV, Section 4.3 of the Monroe County Sewer Use Law.

E. Discharges containing Phenolic compounds shall not exceed 2.13 mg/l as imposed by the Director under Article IV, Section 4.3 of the Monroe County Sewer Use Law. These limits are applicable unless Federal limits are more stringent under which Federal limits will apply.

REPORTING REQUIREMENTS:

A. Per the requirements of 40 CFR, Part 403.5, Significant Industrial Users must submit Periodic Reports on Continued Compliance to the Control Authority on a biannual (2/yr) basis. Deadline dates of submission for these reports will be August 15 and February 15, respectively.

B. Discharge monitoring reports shall be submitted to the Control Authority upon receipt from the permittee's testing laboratory.

C. Any Industrial User subject to the reporting requirements of the General Pretreatment Regulations shall maintain records of all information resulting from any monitoring activities required by 403.12 for a minimum of three (3) years. These records shall be available for inspection and copying by the Control Authority. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the operation of the POTW Pretreatment Program or when requested by the Director or the Regional Administrator.

NOTIFICATION REQUIREMENTS:

A. Pursuant to Article VIII, Section 8.4K, the permittee shall notify the Department within 24 hours of becoming aware that discharge monitoring is in violation of any permit limit. This notification shall be directed to the Industrial Waste Section at 585-753-7600 Option 4. The User shall also repeat sampling and analysis for the analyte in non-compliance and submit the results of the repeat analysis to Monroe County within 30 days after becoming aware of the violation.

B. Notify the Director in writing when considering a revision to the plant sewer system or any change in industrial waste discharges to the public sewers. The later encompasses either an increase or decrease in average daily volume or strength of waste or new wastes.

C. Notify the Director immediately of any accident, negligence, breakdown of pretreatment equipment or other occurrence that occasions discharge to the public sewer of any waste or process waters not covered by this permit.

SLUG CONTROL

An Industrial User shall be required to report any/all slug discharges to the Monroe County sewer system by calling 585-753-7600 option 4. For the purpose of this permit enclosure, a slug discharge shall be identified as any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge. Following a review process, the Control Authority (Monroe County) shall determine the applicability of a facility slug control plan. If the Control Authority decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:

1. Description of discharge practices, including non-routine batch discharges.
2. Description of stored chemicals.
3. Procedures for immediately notifying the Control Authority of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5 (b), with procedures for follow up written notification within five (5) days.
4. If necessary, procedures to prevent adverse impact from accidental spills, including, but not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents) and/or measures and equipment for emergency purposes.

SNC DEFINITION:

In accordance with 40 CFR 403.8 (f) (vii), an Industrial User is insignificant noncompliance (SNC) if its violations meet one or more of the following criteria:

A. Chronic violations of wastewater discharge limits – defined as those which 66% or more of all the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter. This criteria does NOT apply to the following Monroe County surchargeable parameters: Biochemical Oxygen Demand, Total Suspended Solids, Chlorine Demand and Total Phosphorus (ref. Article X – Monroe County Sewer Use Law).

B. Technical review criteria (TRC) violations – defined as those in which 33% or more of all the measurements for each pollutant parameter taken during a six month period equal or exceed the product of the daily maximum limit or the average limit times the applicable TRC. This criteria does NOT apply to the following Monroe County surchargeable parameters: Biochemical Oxygen Demand, Total Suspended Solids, Chlorine Demand and Total Phosphorus (ref. Article X – Monroe County Sewer Use Law).

C. Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the Control Authority determines has caused, alone or in combination with other discharges, interference or pass-through (including endangering the health or POTW personnel or the general public).

D. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or the environment or has resulted in the POTW's exercise of its emergency authority under paragraph (t)(1)(vi)(8) of 40 CFR part 403 to prevent such a discharge.

E. Failure to meet, within 90 days after the scheduled date, a compliance schedule milestone contained in a local control mechanism or enforcement order, for starting construction, completing construction or attaining final compliance.

F. Failure to provide, within 30 days after the due date, required reports such as BMRs, 90 day compliance reports, period reports on continued compliance.

G. Failure to accurately report noncompliance.

H. Any other violation or group of violations that the Control Authority determines will adversely affect the operation and implementation of the local Pretreatment Program.

PENALTIES

Should the facility be considered in Significant Non-Compliance (SNC), based on the above mentioned criteria, the minimum enforcement response by Monroe County will be the publication of the company name in the Gannett Rochester newspaper. The company will be published as an Industrial User in Significant Non-Compliance (SNC). Fines and criminal penalties may follow this publication (ref. Article XII – Monroe County Sewer Use Law).

Nothing in this permit shall be construed to relieve the permittees from civil/criminal penalties for noncompliance under Article XII, Section 12.1(D) of the Sewer Use Law of the County of Monroe. Article XII, Section 12.1(D) provides that any person who violates a permit condition is subject to a civil penalty not to exceed $10,000 for any one case and an additional penalty not to exceed $10,000 for each day of continued violation.

C 2009 Fact Sheet

DRAFT

FACT SHEET

DAVIS HOWLAND OIL CORPORATION

Update of Cleanup Activities at the Davis Howland Oil Corporation Site 200 Anderson Avenue, Rochester, NY

December 2009

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Dear Interested Citizen:

This Fact Sheet is to inform you about the ongoing activities at the Davis Howland site. If you have any questions or would like more information, please do not hesitate to contact:

Mr. William Welling
NYSDEC Project Manager
625 Broadway, 12th Floor
Albany, N.Y. 12233-7013
(518) 402-9638

or

Lisa Silvestri
Citizen Participation Specialist
NYSDEC - Region 8 Avon
6274 East Avon-Lima Road
Avon, NY 14414-9519
(585) 226-5326

For site related health questions, please contact the following New York State Department of Health (NYSDOH) representative:

Mr. Joseph Crua
Public Health Specialist
NYSDOH
Flanigan Square, 547 River Street
Troy, NY 12180
(518) 402-7860 or
(800) 458-1158, ext. 27860

Introduction:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) want to update you on the cleanup at the Davis Howland Oil Corporation (Davis Howland) inactive hazardous waste disposal site. The NYSDEC is cleaning up this site as part of its State Superfund Program to investigate and remediate inactive hazardous waste disposal sites throughout New York State. The State implemented the cleanup plan using money from the 1986 Environmental Quality Bond Act.

The Davis Howland Site (site) is located at 200 Anderson Avenue in the City of Rochester (see map below). The cleanup was necessary to address groundwater and soils beneath the site that has been contaminated with chemicals known as volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). VOCs are chemicals that can evaporate easily and contain carbon, such as ingredients in paint thinners and some solvents. SVOCs are less volatile than VOCs, and include some of the chemicals found in petroleum fuels, coal products, and tar. The highest contaminant concentrations in soil and groundwater were in the immediate vicinity of the building. Although residents in the area are served with municipal water, cleanup is proceeding to prevent the potential exposure to chemicals in the soil and groundwater.

N ⇑

Davis Howland Site Location Map
200 Anderson Avenue, City of Rochester, County of Monroe

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Operation and Maintenance:

As part of current activities at the site, NYSDEC representatives continue to operate and maintain a combined groundwater and soil treatment system that collects and treats contaminated groundwater and soil vapors (air trapped in soil and rock fractures) below the former spill area. The treatment system consists of 47 air injection points (to inject clean air into the ground), 6 soil vapor extraction points (to collect/remove contaminated air from underground), 3 groundwater extraction wells (to collect/remove contaminated groundwater), and 2 bedrock groundwater trench recovery wells (to collect/remove contaminated groundwater).

The remedial treatment system became operational in August 2002 and was monitored and maintained through February 2003 by a remedial construction contractor, the Tyree Organization (Tyree), under NYSDEC supervision. During this time, the treatment system was determined to be satisfactorily removing contamination from the groundwater and soil. In April 2003, the construction contract between the NYSDEC and Tyree was determined to be substantially complete. NYSDEC then contracted the engineering services of Ecology & Environment Engineers (E&E) from Buffalo to restart and operate the treatment system. E&E subsequently subcontracted Niagara Environmental Dynamics, Inc. (NEDI), to restart the treatment system in May 2003 and perform future operation, monitoring, and maintenance responsibilities. Currently, treated water is being sampled, monitored and discharged under permit to the existing Monroe County Department of Environmental Services sewer line along Anderson Avenue. Treated air is being sampled, monitored and discharged in accordance with NYS guidelines. Operation, monitoring, and maintenance will be performed on the system until such time it is determined that continued operation would not result in further significant groundwater and soil contaminant removal.

What Happens Next:

E&E and NEDI are currently under contract to operate and maintain the treatment system until April 2004. Groundwater contaminant levels will continue to be monitored and reported to the NYSDEC and NYSDOH during that time frame. Groundwater samples will be collected periodically to determine contaminant level trends, which are anticipated to decrease over time. Once all of the data have been collected and reviewed, the NYSDEC will evaluate the feasibility to continue operating the treatment system.

For More Information:

The Rochester Public Library (Rundell Branch) has been designated as the local document repository in order to provide you with access to project information. Documents regarding past site investigations, construction, and O&M activities at the Davis Howland site are available for review at:

Rochester Public Library
Rundell Branch
115 South Avenue
Rochester, NY 14604-1896
Hours: Monday 9am-9pm
Tuesday & Wednesday 9am-6pm
Thursday 9am-9pm
Friday 9am-6pm
(585) 428-7300

and at:

NYSDEC's Region 8 Avon Office
6274 East Avon-Lima Road
Avon, NY 14414
Hours: Monday - Friday 8:30am - 4:45pm
For an appointment, contact Lisa Silvestri at
(585) 226-5326.

The NYSDEC and the NYSDOH will keep you informed throughout the remedial program. Your understanding and involvement in this project will help to ensure an effective remedial program. You are encouraged to contact the people listed on the front of this fact sheet at any time with questions, comments or concerns. Because our mailing list includes property owners of businesses and apartments, we encourage you and the building owners to share this fact sheet with your neighbors and tenants, and/or post this fact sheet in a prominent area of your building for tenants, employees, or visitors to view.