2010
Periodic Review Report
Davis-Howland Oil Corporation Site
NYSDEC Site No. 8-28-088

City of Rochester
Monroe County, New York

May 2011

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

BTEX	benzene, toluene, ethyl benzene, and xylene
CAS	Columbia Analytical Services, Inc.
cVOC	chlorinated volatile organic compound
DHOC	Davis-Howland Oil Corporation
1,1-DCA	1,1-dichloroethane
EEEPC	Ecology and Environment Engineering, P.C.
FS	feasibility study
NYSDEC	New York State Department of Environmental Conservation
OM&M	operations, maintenance, and monitoring
PAH	polycyclic aromatic hydrocarbon
PCE	perchloroethylene or tetrachloroethene
PRR	Periodic Review Report
Popli	Popli Consulting Engineers and Surveyors, P.C.
RI	remedial investigation
SMP	Site Management Plan
TCE	trichloroethylene
TPH	total petroleum hydrocarbon
VOC	volatile organic compound

Site Certification Form
(Enclosure 1)
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?	X	☐
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?	☐	X
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?	☐	X
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.

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

Gerald Strobel 5/2/2011
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification Stamp (If Required) Date

1 Introduction and Background

This Periodic Review Report (PRR) provides information on the operations, maintenance, monitoring, compliance, and operating costs for the Davis Howland Oil Corporation (DHOC) site during calendar year 2010. This PRR also provides certification that the engineering and institutional controls on site have been effective thus far in facilitating the remedial cleanup of the site (see Enclosure 1).

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; and
- 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 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.

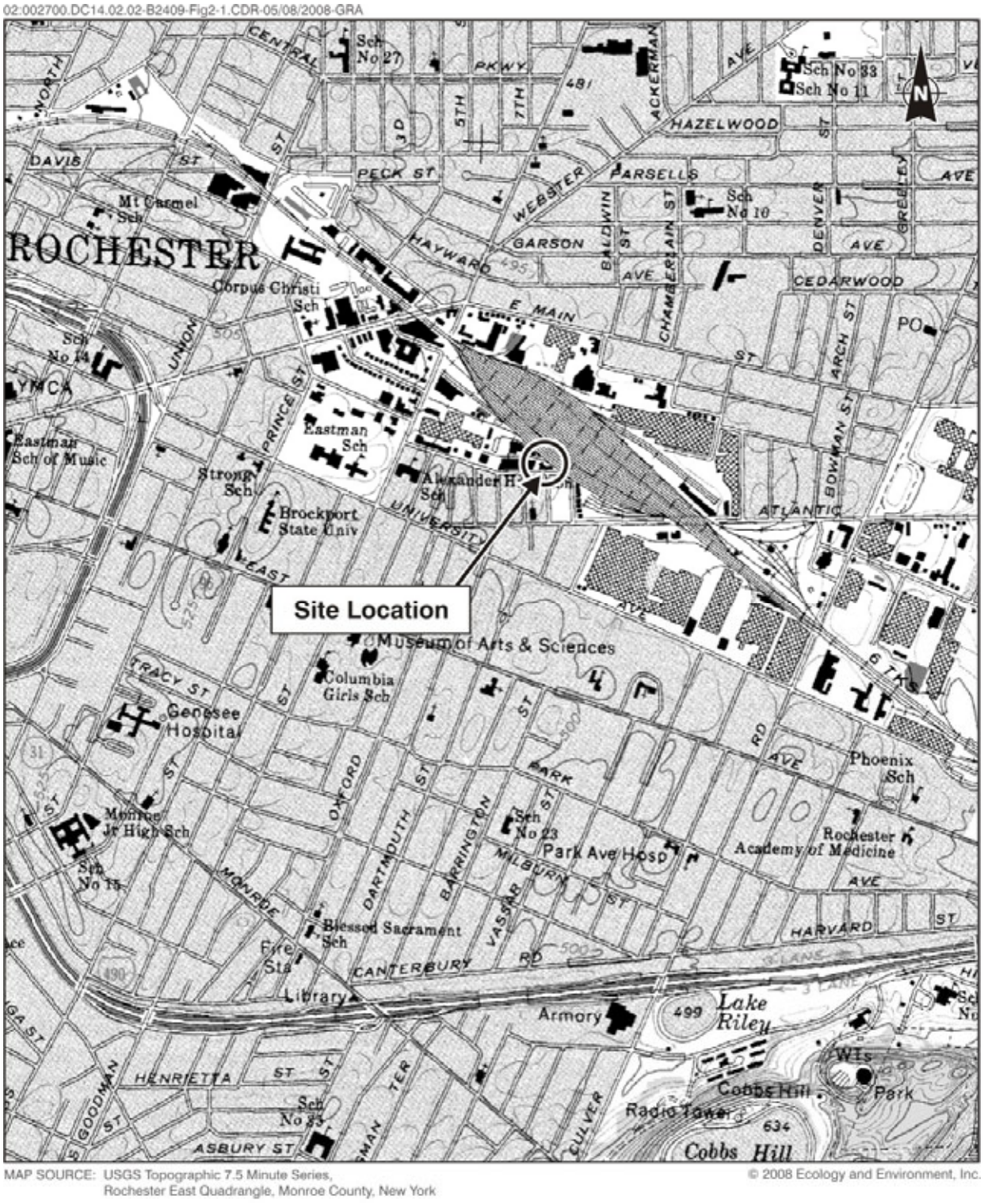


Figure 1-1 General Site Location Map, Davis-Howland Oil Corporation Site, Rochester, New York

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 2010, 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 2010, 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 to 12.0
Polychlorinated biphenyls	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:

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

= Pesticide analysis performed on a semiannual basis.

bdl = Below detection limit.
CFR = Code of Federal Regulations.
gpm = Gallons per minute.
MCAWW = (U.S. Environmental Protection Agency) Methods for Chemical Analysis of Water and Wastes.
NA = Not applicable.
NYSDOH = New York State Department of Health.
ppm = Parts per million.
ppb = Parts per billion.
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 Transportation 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 Ecology and Environment Engineering, Inc. (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 Transportation 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. Accordingly, EEEPC recommends that an environmental easement be obtained for

the remedial site to facilitate access for performance of OM&M at the site. The locations of these monitoring wells are identified in the *2010 Groundwater Sampling Draft Data Summary Report* (EEEPC 2010a).

3.2 Engineering Controls

The engineering controls that support remedial operations at the site are consistent with the Site Management Plan (SMP) regarding OM&M of the site. There have been no changes to engineering controls at the site since the previous PRR.

4 Evaluation of Remedial Treatment Operations

The remedial operating units operated nearly continuously in 2010.

4.1 System Operational Uptime in 2010

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 affects 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 2010, based on information from the weekly OM&M reports from the subcontractor, the remedial treatment system operated 8,149 hours out of a possible 8,736 hours, for an uptime operation of approximately 93%. Major downtime incidents included the following:

- In May, the air stripper was cleaned and flow sensors for the influent meters associated with groundwater pumping wells PW-1, P-1 were cleaned and inspected. This caused the system to be shut down for approximately 12.5 hours.

- In June, a low-level alarm in the equalization tank caused a system shutdown for approximately 14 hours.

- In July, the system was shut down for 32 hours due to multiple air stripper high-level alarms on July 12 and 13, 2010; and 41.5 hours due to a high-level alarm from the equalization tank on July 24 through 26, 2010. In an attempt to correct the system, the float switches were replaced.

- In August and September, the system was shut down for 434 hours due to multiple equalization tank high-level float alarms between August 4, 2010, and September 3, 2010. It was determined that the float alarms were not caused by to the float switches, but were related to the solid state relays

caused by to the float switches, but were related to the solid state relays through which the float switches were connected.

- In December, the system was shut down for a total of 54 hours due to multiple water level alarms in the equalization tank and air stripper. During responses to the alarms, no specific cause for the alarms could be determined, and the system was restarted. During February 2011 operations, it was determined that the control board relays associated with the water level alarm circuits were malfunctioning.

Table 4-1 provides details on the monthly operation of the treatment system.

Table 4-1 DHOC Site Remedial Treatment System Uptime in 2010

Reporting Period	Reporting Hours/ Maximum Hours	Operational Uptime (%)
December 31, 2009 to January 29, 2010	696/696	100
January 29, 2010 to March 4, 2010	816/816	100
March 4, 2010 to March 26, 2010	528/528	100
March 26, 2010 to April 30, 2010	840/840	100
April 30, 2010 to May 28, 2010	659.5/672	98.1
May 28, 2010 to June 25, 2010	658/672	97.9
June 25, 2010 to July 30, 2010	766.5/840	91.3
July 30, 2010 to August 27, 2010	334/672	49.7
August 27, 2010 to September 24, 2010	576/672	85.7
September 24, 2010 to October 29, 2010	840/840	100
October 29, 2010 to November 24, 2010	624/624	100
November 24, 2010 to December 30, 2010	810/864	94
Total Hours of Operation in 2010	**8,149/8,736**	**93%**
Average Percentage of Operational Uptime in 2010		**93%**

Additional details can be found in the monthly OM&M reports (EEEPC 2010b through 2010m).

4.2 Groundwater Processed and Discharged through the Remedial Treatment System in 2010

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 1,094,029 gallons of treated groundwater to the Monroe County sanitary sewer system from December 31, 2009, to December 30, 2010 (see Table 4-2). The increase in total discharge flow in 2010 over that of 2009 was due to 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 2010

Month	Actual Period	Gallons Treated
January 2010	12/31/09 to 1/29/10	116,684
February 2010	1/29/10 to 3/4/10	120,543
March 2010	3/4/10 to 3/26/10	112,335
April 2010	3/26/10 to 4/30/10	136,563
May 2010	4/30/10 to 5/28/10	90,422
June 2010	5/28/10 to 6/25/10	82,000
July 2010	6/25/10 to 7/30/10	89,483
August 2010	7/30/10 to 8/27/10	49,000
September 2010	8/27/10 to 9/24/10	55,999
October 2010	9/24/10 to 10/29/10	86,000
November 2010	10/29/10 to 11/24/10	64,600
December 2010	11/24/10 to 12/30/10	90,400
Total Gallons Treated in 2010		**1,094,029**

4.3 Chlorinated Volatile Organic Compounds (cVOCs) Removed from Groundwater in 2010 (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 2010 to December 2010, approximately 10.33 pounds of cVOCs were removed from the groundwater by the remedial treatment system in 2010 (see Table 4-3. Additional cVOC results are presented in the monthly OM&M reports (EEEPC 2010b through 2010m).

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 2010	12/31/09 to 1/29/10	816	10	98.8	0.772
February 2010	1/29/10 to 3/4/10	679	14	97.9	0.663
March 2010	3/4/10 to 3/26/10	1,079	45.9	95.8	0.96
April 2010	3/26/10 to 4/30/10	1,400	17.2	98.8	1.57
May 2010	4/30/10 to 5/28/10	3,039	31.4	99.0	2.26
June 2010	5/28/10 to 6/25/10	2,968	0.00	100.0	1.98
July 2010	6/25/10 to 7/30/10	1,620	0.00	100.0	1.18
August 2010	7/30/10 to 8/27/10	1,296	55.9	95.7	0.51

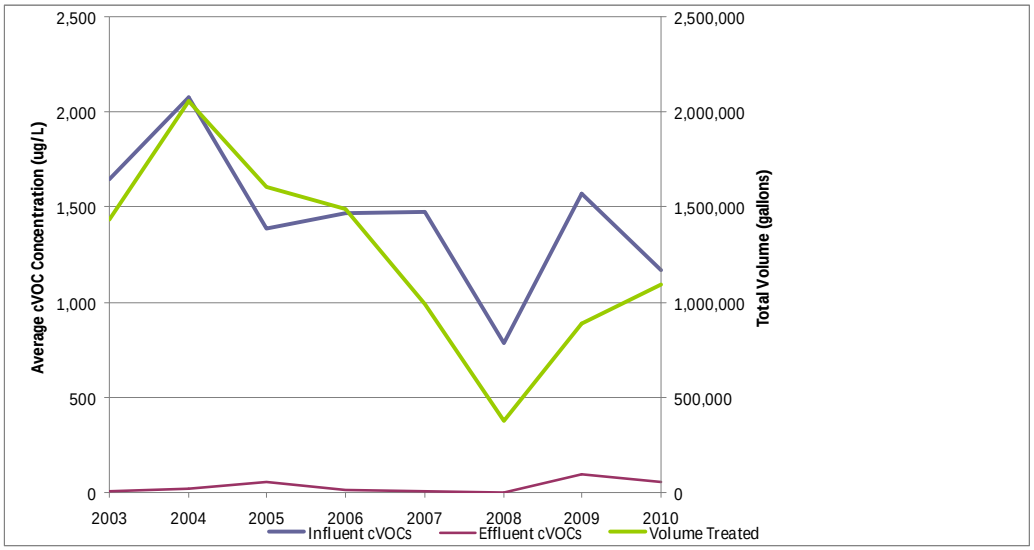
Table 4-3 cVOCs Removed from Groundwater by the DHOC Site Remedial Treatment System in 2009

Month	Actual Period	Influent cVOCs (µg/L)	Effluent cVOCs (µg/L)	Removal Efficiency (%)	cVOCs Removed (pounds)
September 2010	8/27/10 to 9/24/10	270	89.1	67.0	0.08
October 2010	9/24/10 to 10/29/10	272	54.4	80.0	0.16
November 2010	10/29/10 to 11/24/10	330	179	45.7	0.08
December 2010	11/24/10 to 12/30/10	288	125	56.8	0.12
				Total	**10.33**

Key:
cVOC = Chlorinated volatile organic compound.
µg/L = Micrograms per liter.

Figure 4-1 shows the historical treatment trend for the DHOC site from 2003 through 2010. Since 2003, the average total cVOC concentration in the influent of the system has generally decreased, indicating the contaminant concentration in the extracted groundwater is decreasing. The increase in flow between 2009 and 2010 is due to the pump rehabilitation/replacement system which occurred in August 2009 and increased the volume of processed groundwater.

The annual average cVOC concentration presented below is estimated by summing the monthly influent concentrations during each year and dividing this sum by 12. Because the system was offline between March 7, 2008 and September 18, 2008, the average 2008 cVOC concentration was calculated only for the approximate six-month period of active operation (from January to March and from September to December 2008) is 788 micrograms per liter.



Note:

1. Deactivation of the catalytic oxidation 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, 2003-2010

4.4 Groundwater Treatment - 2010

The effluent from the remedial treatment system met the discharge permit requirements (see Appendix B) for each month of 2010. 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 May 21, 2010.

Table 4-4 2010 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	2.75	8.48	ND	0.010	Yes
February	2.44	8.26	ND	0.014	Yes
March	3.50	8.26	ND	0.046	Yes
April	2.70	8.28	ND	0.017	Yes
May	2.27	8.30	ND	0.031	Yes
June	2.03	8.38	ND	ND	Yes
July	1.90	8.44	ND	ND	Yes
August	2.61	7.68	ND	0.1	Yes
September	1.62	8.06	ND	0.089	Yes
October	1.71	8.41	ND	0.054	Yes
November	1.73	7.58	ND	0.179	Yes
December	1.86	7.54	ND	0.125	Yes

Note: PCBs were removed from the permit analyte list on October 28, 2008 – refer to the SMP (EEEPC 2008; Appendix G).

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

4.5 Groundwater Monitoring Well Sampling Results – 2010

In 2010, the following six cVOCs were detected in overburden groundwater samples at levels that exceed the New York State Department of Environmental Conservation (NYSDEC) Class GA groundwater standards: 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), 1,2-dichlorobenzene, cis-1,2-dichloroethene, perchloroethylene (PCE), and trichloroethylene (TCE; EEEPC 2010a). 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, benzene, cis-1,2-DCE, TCE, and vinyl chloride. The cVOCs and benzene, toluene, ethyl benzene, and xylene (BTEX) continue to be detected at higher concentra-

tions in the bedrock groundwater relative to the overburden groundwater. However, BTEX 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 2010.

5 General Status of Remedial Treatment Equipment Oversight Activities

In 2010, OM&M of the DHOC site remedial treatment system was performed on a weekly basis by EEEPC's OM&M subcontractor, Popli. 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

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

Key:
NA = Not applicable.

5.1 Remedial Treatment Condition, Replacement, and Repairs in 2010

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 May, pump P-1 was investigated to determine why the total flow reading had not changed since March 19. It was determined that the P-1 and PW-1 flow sensors were not functioning correctly. The sensors were cleaned and tested on May 14. Since the total flow readings are based on the air stripper effluent pump meter, the malfunctioning sensors did not affect the results of the mass removal calculations.

The air sparge compressor and the air stripper effluent pump meter were not operating on July 12. The air stripper effluent pump meter was cleaned and repaired on July 13. The air sparge compressor was removed from the site on July 23 for repairs and was brought back to the site on August 13. Two intake filters were installed on the air sparge compressor on August 31.

The high float switch on the equalization tank was replaced on August 10. Diagnostic testing was performed on the control panel and equalization tank float switches on August 19.

Repair and replacement work performed on the DHOC site treatment system in 2010 is identified in Table 5-2.

Table 5-2 DHOC's 2010 Equipment Repair and Replacement Program 2010

Activity	Completion Date
PW-1 and P-1 flow sensors repaired	May
Neptune T-10 discharge meter repaired	July
Air Sparge Compressor repaired	July
Equalization tank high flow switch replaced	August
Control panel diagnostic performed	August
Air sparge compressor intake filters replaced	August

5.2 Groundwater Monitoring Well Network

Long-term groundwater sampling was performed in May 2010. 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 May 2010 Well Inspection, DHOC Site

Well No.	Date Inspected	PVC Well Casing ID (inches)	Inspection Observations
CHI-1	5/4/09	2	Dry
CHI-6	5/4/09	2	Dry
MW-1S	5/4/09	2	OK
MW-2S	5/4/09	2	OK
MW-3S	5/4/09	2	Cover missing
MW-9S	5/4/09	2	OK
MW-12S	5/4/09	2	OK
MW-13S	5/4/09	2	OK
MW-14S	5/4/09	2	OK
MW-2R	5/4/09	4	OK
MW-3R	5/4/09	2	OK
MW-5R	5/4/09	4	OK
MW-8R	5/4/09	4	OK
MW-10R	5/4/09	4	OK
MW-12R	5/4/09	4	OK
MW-14R	5/4/09	4	OK
MW-15R	5/4/09	4	OK
MW-16R	5/4/09	4	OK

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. Attainment of 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 2010, 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, May 2009, and May 2010, cVOC concentrations have decreased with time. The next evaluation of the site groundwater will be performed in spring 2011.

More specifically, polycyclic aromatic hydrocarbons (PAHs) are no longer present at concentrations exceeding NYSDEC's groundwater standards. BTEX 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 2010.

Based on the observed changes in the distribution of the BTEX and cVOC contaminations 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 continues to extend 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, the sampling frequency for pesticides was changed from analysis on a monthly basis to a semiannual basis (see Appendix B). EEEPC recommends that discharge permit contaminant parameter relief should be given for total petroleum hydrocarbons (TPH) as well. TPH analytes have not been detected in the influent or effluent samples for the past two years.

7 Annual Remedial Action Costs

The approximate 2010 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 2010 cost for operating the remedial treatment system at the DHOC site was $171,566.04.

Table 7-1 2010 Remedial Action Costs, DHOC Site

Description	WA DC14 Total ($)
NYSDEC Operations	$8,313.64
Sub – OM&M Services	$26,816.37
Sub – Analytical Services	$14,248.90
Utilities – Electric	$9,704.25
Utilities – Gas[1]	$0.00
Utilities – Telephone	$358.05
Replacement Equipment	$1,873.45
Long-term Monitoring Program	$33,350.23
EEEPC Admin, Management, and Reporting	$76,891.15
2010 Grand Total	**$171,556.04**

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

Key:
NYSDEC = New York State Department of Environmental Conservation.
OM&M = Operations, maintenance, and monitoring.

8 Department or Local Public Reporting

8.1 NYSDEC Fact Sheet

The most recent NYSDEC Fact Sheet was issued by NYSDEC in December 2009 (see Appendix C).

8.2 Local Public Reporting

No local public reporting of the site or remedial site operations was noted in 2010. The local reporting newspaper in Rochester, New York, is the *Democrat and Chronicle*.

9 References

Ecology and Environment Engineering, P.C. (EEEPC). 2008. *Draft Site Management Plan, Former Davis-Howland Oil Corporation Site, NYSDEC Site No. 8-28-088, City of Rochester, Monroe County, New York.*

_____ 2010a. *Former Davis-Howland Oil Corporation Site, 2010 Groundwater Sampling, Draft Data Summary Report, Rochester, New York,* prepared by EEEPC, Lancaster, New York.

_____ 2010b. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, January 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010c. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, February 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010d. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, March 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010e. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, April 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010f. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, May 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010g. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, June 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010h. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, July 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010i. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, August 2010 Operations, Maintenance, and Monitoring Report.*

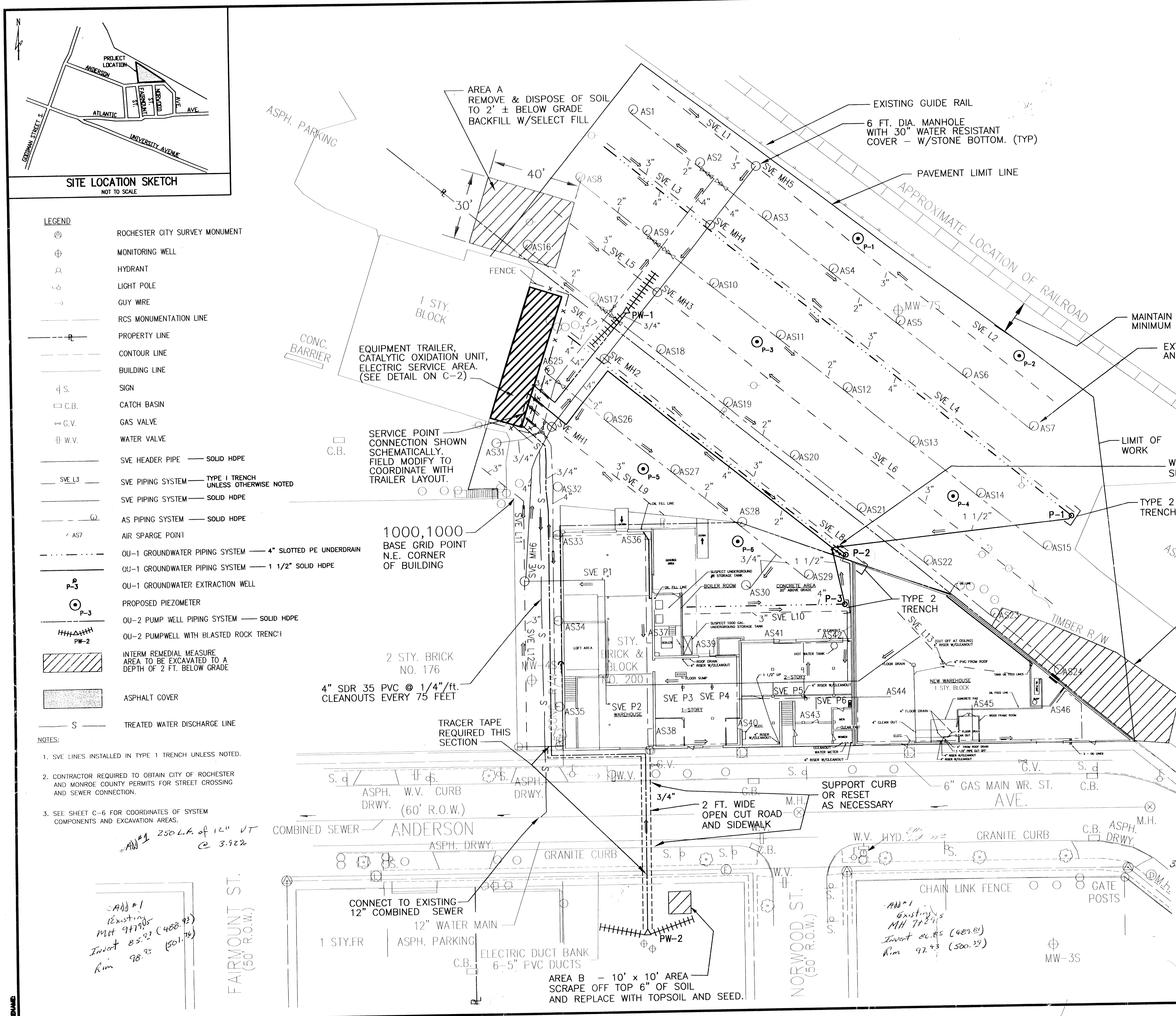
_____ 2010j. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, September 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010k. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, October 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010l. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, November 2010 Operations, Maintenance, and Monitoring Report.*

_____ 2010m. D*avis-Howland Oil Company Site, EEEPC Contract # D004442, Site # 8-28-088, December 2010 Operations, Maintenance, and Monitoring Report.*

A Detailed Site Map



* LATERAL RISER CONNECTION – FIG. 8A — ADD #1
* 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 Tel: (716) 760-7578	Mr. Michael Kirchgessner 444 E. Henrietta Rd. Rochester, NY 14620 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."

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:

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

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

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

AS / SVE SITE PLAN

DAVIS-HOWLAND OIL CORP.
REMEDIATION PROJECT
200 ANDERSON AVENUE
ROCHESTER, NEW YORK

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

DRAWING NUMBER: C-1

SHEET NUMBER: 986265C1.DWG

B

County of Monroe Discharge Permit 2010 – 2013

ecology and environment engineering, p.c.

BUFFALO CORPORATE CENTER
368 Pleasant View Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

April 21, 2010

Mr. Harry Rieter, Pretreatment Coordinator
County of Monroe
Department of Environmental Services - Industrial Waste Section
444 East Henrietta Road
Rochester, New York 14620

Re: Davis Howland Oil Company Site, 200 Anderson Avenue, Rochester, New York
NYSDEC Contract # D004181, Site # 8-28-088, Sewer Use Permit Renewal, 2010-2013

Dear Mr. Reiter:

Enclosed is the Sewer Use Permit Renewal application package (Sewer Permit # 864) prepared for the Davis Howland Oil Company Site, Site #8-28-088, 200 Anderson Avenue, Rochester, NY for the New York State Department of Environmental Conservation (NYSDEC). Ecology and Environment Engineering, P. C. (EEEPC) will be performing the operations and maintenance (O&M) of the remedial treatment system for the next 36 months (May 2010 to April 2013). This renewal permit package intends to replace the current renewal permit obtained in 2007 by the New York State Department of Environmental Conservation approved for operation by the County of Monroe. Attached to this letter is the permit renewal application signed by Mr. William Welling, Project Manager for NYSDEC. Check #151612 from EEEPC for $75 is also attached to cover the permit renewal fees for the period 2010-2013.

Also, as a part of the renewal permit package request, EEEPC has provided a copy of our current insurance coverages required by contract to NYSDEC to oversee the O&M per the renewal request. If you have any questions regarding the renewal package, please call me at 716-684-8060.

Very Truly Yours,

Michael A. Aloi
Project Manager

cc: W. Welling, NYSDEC - Albany, NY w/attachments
M. Crawford, Popli Engineers - w/attachments
CTF- 002700.DC14.02.01.01

COUNTY OF MONROE
SEWER USE PERMIT RENEWAL

Firm Name: NYSDEC Div. of Env. Remed.
200 Anderson Avenue

Permit Number: 864
Fee: $ 75.00
Expires: **May 30, 2013**

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

W/C Expire:
District No: 8575

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) N/A (cu ft/gal) N/A

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
Ecology and Environment, Inc.
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: April 13, 2010

Title: NYSDEC Project Manager

Renewal Approved by: _____ Issued this ___ day of _____ 20 ___.

Michael J. Garland, P.E.
Director of Environmental Services-PureWaters
Monroe County

ECOLOGY AND ENVIRONMENT, INC. 151612

OUR REF. NO.	YOUR INVOICE NO.	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
307960	PERMIT RENEW	04/13/2010	$75.00	$75.00	$0.00	$75.00
	TOTALS		$75.00	$75.00	$0.00	$75.00

151612

ecology and environment, inc.
368 PLEASANTVIEW DRIVE
LANCASTER, NY 14086

M&T BANK
BUFFALO COMMERCIAL BANKING
10-4-220

DATE	CONTROL NO.	AMOUNT
04/16/2010	000151612	$75.00

PAY TO THE ORDER OF Seventy Five And 00/100 Dollars

COUNTY OF MONROE
PERMIT SECTION
DIRECTOR OF FINANCE
444 EAST HENRIETTA ROAD
ROCHESTER, NY 14620

AUTHORIZED SIGNATURE

Security features. Details on back.

⑈151612⑈ ⑆022000046⑆ 8891583224⑈

ECOLOGY AND ENVIRONMENT, INC. 151612

COUNTY OF MONROE
PERMIT SECTION
DIRECTOR OF FINANCE
444 EAST HENRIETTA ROAD
ROCHESTER, NY 14620

Client#: 812 ECOLENV

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 07/31/09

PRODUCER
Willis of New York, Inc.
344 Delaware Avenue
Buffalo, NY 14202
716 856-1100

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Ecology and Environment Engineering,P.C.
368 Pleasant View Drive
Lancaster, NY 14086

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Zurich American Insurance Co.	16535
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [X] LOC	GLO9324707	08/01/09	08/01/10	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$3,000,000 $500,000 $50,000 $3,000,000 $3,000,000 $3,000,000
A A		AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS	BAP9324708 BAP9326373	08/01/09 08/01/09	08/01/10 08/01/10	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$2,000,000 $ $ $
		GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
A		EXCESS/UMBRELLA LIABILITY [X] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [X] RETENTION $ 10000	SUO9549370	08/01/09	08/01/10	EACH OCCURRENCE AGGREGATE	$15,000,000 $15,000,000 $ $ $
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	WC9324709	08/01/09	08/01/10	[X] WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
A		OTHER Professional & Pollution Legal Liability	PEC654929800	08/01/09	08/01/10	$10,000,000 Each Claim $10,000,000 Aggregate	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
RE: NYSDEC Contract #D004442, Davis Howland Oil Company site, NYSDEC Site #8-28-088

CERTIFICATE HOLDER

County of Monroe: Department of Environmental Services
444 East Henrietta Road
Rochester, NY 14620

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Department of **Environmental Services**

Monroe County, New York

Maggie Brooks
County Executive

Michael J. Garland, P.E.
Director

February 01, 2010

Mr. William Welling
NYSDEC Div. of Env. Remed.
625 Broadway, 12th Floor
Albany, NY 12233-7013

Re: Revised Sewer Use Permit Enclosure

Dear Mr. William Welling:

Enclosed is an updated copy of your Sewer Use Permit enclosure. The *Terms and Conditions* section of the permit has been revised for all industrial users. The subsections *Surcharge Concentrations* and *Discharge Limitations* have been added. This updated permit enclosure explains all of the wastewater limits covered by the Monroe County Sewer Use Law. Please review these updates and attach the first page of your current permit to this new enclosure. The old permit enclosure can be destroyed.

If you have any questions regarding the permit, please call Sean Keenan at (585) 753-7658 or Ken Smith at (585) 753-7666.

Sincerely,

Harry M. Reiter
Pretreatment Coordinator

444 East Henrietta Road Rochester, New York 14620-4630 Tel: (585) 753-7600 Fax: (585) 324-1213
http://www.Monroecounty.gov printed on recycled paper

COUNTY OF MONROE
SEWER USE PERMIT ENCLOSURE

NYSDEC Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7013

PERMIT NUMBER: 864
DISTRICT NUMBER: 8575

TYPE OF BUSINESS: Groundwater Remediation
LOCATION: Davis Howland Oil Co. Site – 200 Anderson Ave.
Rochester, NY

SAMPLE POINT: IWC-864.1 - Sample Port – Air Stripper

REQUIRED MONITORING & EFFLUENT LIMITS

SAMPLE POINT: IWC-864.1 - Sample Port – Air Stripper

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:

Purgeable Halocarbons
Purgeable Aromatics
Acid Extractables
Base Neutrals
Total Petroleum Hydrocarbons
pH
Acetone (Monitor Only)

DISCHARGE LIMITATIONS: The summation of purgeable aromatics, purgeable halocarbons, acid extractables, and base neutrals greater than 10 µg/l shall not exceed 2.13 mg/l. Total petroleum hydrocarbons shall not exceed 100 mg/l. The pH shall be within 5.0-12.0 su.

REQUIRED MONITORING & EFFLUENT LIMITS (CONTINUED)

SAMPLE POINT: IWC-864.1 - Sample Port – Air Stripper

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:

Pesticides

DISCHARGE LIMITATIONS: The summation of pesticides, purgeable aromatics, purgeable halocarbons, acid extractables, and base neutrals greater than 10 µg/l shall not exceed 2.13 mg/l.

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. If there is no discharge for a given month, then a letter must be submitted stating so.

TERMS AND CONDITIONS

GENERAL REQUIREMENTS:

A. The permittee agrees to accept and abide by all provisions of the Sewer Use Law of Monroe County(MCSUL) 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 Total Toxic Organics(TTO) 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 unless otherwise specified in the permit. These limits are applicable unless Federal limits are more stringent under which Federal limits will apply.

SURCHARGE CONCENTRATIONS:

Concentration and/or characteristics of normal sewage:
"Normal Sewage" shall mean sewage, industrial wastes or other wastes, which when analyzed, show concentration values with the following characteristics based on daily maximum limits:

a. B. O. D.	300 mg/l
b. Total Suspended Solids	300 mg/l
c. Total Phosphorus, as P	10 mg/l

Annual average concentrations above normal sewage are subject to surcharge as defined in Article X of the sewer use law.

DISCHARGE LIMITATIONS (SEWER USE LIMITS)

Permissible concentrations of toxic substances and/or substances the Department wishes to control:
The concentration in sewage of any of the following toxic substances and/or substances the Department wishes to control shall not exceed the concentration limits specified when discharged into the County Sewer System; metal pollutants are expressed as <u>total</u> metals in mg/l (ppm): the following pollutant limits are based on daily maximum values:

a. Antimony (Sb)	1.0 mg/l
b. Arsenic (As)	0.5 mg/l
c. Barium (Ba)	2.0 mg/l
d. Beryllium (Be)	5.0 mg/l
e. Cadmium (Cd)	1.0 mg/l
f. Chromium (Cr)	3.0 mg/l
g. Copper (Cu)	3.0 mg/l
h. Cyanide (CN)	1.0 mg/l
i. Iron (Fe)	5.0 mg/l
j. Lead (Pb)	1.0 mg/l
k. Manganese (Mn)	5.0 mg/l
l. Mercury (Hg)	0.05 mg/l
m. Nickel (Ni)	3.0 mg/l
n. Selenium (Se)	2.0 mg/l
o. Silver (Ag)	2.0 mg/l
p. Thallium (Tl)	1.0 mg/l
q. Zinc (Zn)	5.0 mg/l

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 in significant 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

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

FACT SHEET

DAVIS HOWLAND OIL CORPORATION

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

December 2009

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.

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

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.