DELPHI
Automotive Systems

February 4, 2000

Kelly C. Cloyd, Ph.D.
Engineering Geologist II
New York State Department of Environmental Conservation
Division of Environmental Remediation
Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

Re: Delphi Automotive Systems Site
1000 Lexington Avenue, Rochester, New York
Site # 828064, RI/FS Work Plan

Dear Mr. Cloyd:

Enclosed is a copy of a point-by-point response to the comments on the referenced Work Plan that we received under cover of your letter of December 10, 1999. We thought that the comments were constructive and they have helped us in focusing on the issues that need to be addressed to gain the Department's approval.

We would like to meet with you in February, during the week of February 21, to finalize any remaining issues so that we can proceed with the preparation of the final draft of the Work Plan. Please call with suggested dates and times at your earliest convenience.

It appears from the Department's comments that the principal topics for discussion at our proposed meeting would consist of the following:

1) Incorporation of Interim Remedial Measures into RI/FS Order on Consent.
Under cover of letter dated January 19, 2000, our outside counsel, Barry Kogut, forwarded to Maura Desmond, the Department Attorney assigned to this file, a copy of a revised RI/FS Order on Consent that includes as Exhibits D-G a summary of the IRMs in operation at the Site. A copy of a set of these Exhibits is enclosed. We want to continue to operate these IRMs in accordance with the operation and maintenance provisions set forth in these Exhibits and we will update their operation as appropriate to reflect new analytical data.

Given the Department's desire to conclude the remedial investigation process under the terms of an Order on Consent, the appropriateness of consulting with your office before making any significant modifications to the IRMs and the rules that apply to activities on sites on the Department's Registry of Inactive Hazardous Waste Disposal Sites, we believe it to be important that the Order reflect the fact that we will now be operating the IRMs under the authorization of a Department Order.

We would be pleased to review the details of any of these IRMs at our proposed meeting and supply you with any additional information about them prior to the meeting. Although these IRMs have not gone through the formality of a Department approval process such as

We would be pleased to review the details of any of these IRMs at our proposed meeting and supply you with any additional information about them prior to the meeting. Although these IRMs have not gone through the formality of a Department approval process such as that set forth in the RI/FS Order for new IRMs, we have kept the Department informed of our IRM activities. In fact, in the case of the Groundwater Migration Control System, we coordinated with the Department and the New York State Department of Health in presenting the remedial measure to the public prior to its implementation.

2) **Use of Data from Previous Investigations**. We want to take advantage of the extensive work that has been done at the Site since 1981. This means that we focus on those contaminants of concern that have been detected to date in areas that have been the subject of previous investigations and utilize broader analytical scans only for those areas where there has inadequate characterization of environmental conditions.

The past history should also allow us to minimize the use of analytical data packages that would be appropriate on sites, unlike this one, that are at the beginning of the remedial investigation process.

3) **Reflection of Future Land Use in Defining Remedial Objectives.** It is the objective of the state superfund program (which addresses inactive sites) to "eliminate or mitigate all significant threats to the public health and to the environment presented by hazardous waste disposed at the site." The RCRA Corrective Action program, which is designed to address active operating facilities, provides that the Department can require corrective action "or such other response measures as are deemed necessary to protect human health or the environment." Under both of these programs, current and future use of the site is key.

In its comments, the Department noted: "Current and future uses of the site are important; however, for these factors to effect the remedy selection process, it is generally necessary to ensure that future uses are controlled." We would like to review with the Department the possibility of focusing our work by having the review of remedial alternatives reflect anticipated land use by controlling future uses earlier in the remedial process.

In other words, Delphi would consider placing at this time a deed restriction on the site that would, for example, prohibit the use of the site for residential purposes and/or the use of onsite groundwater without prior Department review and approval. This restriction would help streamline the review process and assure that the consideration of contaminant impacts reflects realistic exposure scenarios.

4) **Areas of Limited Contaminant Impact.** We want to review with you the possible scenarios where we may be able to limit the scope of investigations because the scope of any potential environmental impact from a particular source would be limited and/or the potential remedy can be determined from a review of similar onsite areas of contamination.

5) **Citizen Participation Program (CPP).** It is our understanding that notice must be given before certain activities can be undertaken at sites that are on the Registry of Inactive Hazardous Waste Disposal Sites (see 6 NYCRR § 375-1.2(f) and § 375-1.6). We want to review with you the scope of the activities that will require prior notice (given the fact that this is an active manufacturing facility), and the list of those parties that must be provided notice as a part of the CPP.

6) Schedule for the Performance of the Work. The time required to complete certain work items might need to be extended because of the inaccessibility of some proposed sampling locations in areas of manufacturing operations. We want to review the issue of scheduling to assure that the RI work can be done in a complete and efficient manner without unduly disrupting our operations.

I look forward to your call to discuss our proposed meeting.

Sincerely,

Richard C. Eisenman

Richard C. Eisenman
Senior Environmental Engineer

cc: Maura C. Desmond, Esq. DEC Division of Environmental Enforcement (w/enclosure)
Mr. Richard Elliott, P.E. Monroe County Department of Health (w/enclosure)
Dawn E. Hettrick, NYS Department of Health (w/enclosure)

Response to NYSDEC Comments Dated December 10, 1999
Delphi Automotive Systems Site
1000 Lexington Avenue, Rochester, New York
Site #828064, RI/FS Work Plan

Delphi Automotive Systems (Delphi) has reviewed the Department's letter dated 10 December 1999 providing comments on the draft RI/FS work plan prepared by Haley & Aldrich of New York (Haley & Aldrich) for Delphi's Lexington Avenue site. Delphi appreciates the Department's thorough review of the work plan, and with the assistance of Haley & Aldrich submits the following responses to the Department's comments.

In general, Delphi agrees with many of Department's proposed changes to the work plan. Where Delphi disagrees with the approach proposed by the Department, details of a proposed alternative are provided. The Department's specific comments are transcribed below, and each comment is followed by a response.

NYSDEC comment:

Page 5, Section 2.2 - The Department does not agree that Delphi has demonstrated that there is no off-site groundwater flow due to groundwater collection via the fractured bedrock trench. Additional wells included in this investigation are needed to determine the effectiveness of this system for the shallower zones. The water level data indicate that the collection system has little effect on groundwater flow in the deep bedrock zone.

Delphi Response:

The Migration Control System is an Interim Remedial Measure (IRM), and further study is needed to determine whether it is appropriate as a component of the preferred remedial alternative for the site. Delphi agrees that the additional investigations to be performed during the RI will enable us to better evaluate the effectiveness of the Migration Control system in preventing the offsite flow of contaminated groundwater. The planned investigations will also enable us to identify areas where off-site flow of groundwater may need to be addressed by additional remedial measures. However, the data show that the Migration Control system has a significant effect on the hydrogeologic system at the site, that it is performing as designed, and that it does prevent the offsite migration of contaminants along most of the downgradient site boundary.

The trench was not designed to capture deep bedrock groundwater. The deep bedrock at the site has very low permeability, and available data collected during previous investigations indicate that site-related contaminants of concern (dissolved chlorinated VOCs) are confined to the overburden and shallow- and intermediate-bedrock horizons which are addressed by the Migration Control system.

NYSDEC comment:

Page 32, Item 7 - A Reclaim Water Tower was located near PZ-129. Could the reclaim water be the source of PCBs? Vacuum pumps were also located nearby; they could have contained PCB oil. Other sources of PCB oil could be cutting oils or the concrete lined waste oil pit (see p. 15 of Site History Document). Since the Delphi facility has relatively large electric power needs and operated during the 1950s, 1960s, and 1970s, it is possible PCB containing

transformers were present on-site even though there are no clear records documenting their use.

Delphi Response:

No PCB use was associated with the cooling tower formerly located near PZ-129. This tower was part of a process-cooling system that provided cooling and seal water for a Nash water-ring system of vacuum pumps. The pumps were located on the mezzanine level of Building 22, and were used to create conditions necessary for the calibration testing of carburetors and fuel injectors in Building 22. The vacuum pumps were designed for high airflow, low-vacuum (~25 inches water) applications, and used water seals rather than the oil used in high-vacuum applications. No PCB fluids were used in this system.

The PZ-129 LNAPL consists of Stoddard solvent containing parts-per-million levels of PCBs. This LNAPL appears to originate from under Building 22. Stoddard solvent had been used in the former operation of the fuel-system test stands inside Building 22. Delphi has implemented an IRM to recover the Building 22 LNAPL, and further study is required to determine the long-term effectiveness of the current system.

The source of the PCBs in the Building 22 LNAPL is not known. Concentrations of PCBs detected in the LNAPL samples from the Building 22 area have consistently been significantly higher in samples collected from locations north and south of the building than from the wells located within the building. The release of the Stoddard solvent is believed to have occurred from the underground solvent return lines and sumps located beneath the floor of the building. The distribution of PCB levels in the LNAPL therefore indicates that the PCBs were not contained in the Stoddard solvent when it was released.

No other known sources have been identified. The possibility has been considered that there may be an unidentified source of contamination in the fill in the vicinity of Building 22 from which the Stoddard Solvent LNAPL has scavenged the PCBs. One such possibility is that PCB-contaminated oils may have been used for dust control on the gravel drives which were present in this area during the period before the area was filled for construction of Building 22. However, previous investigations have not found such a source.

Well SR-102, located near the former concrete-lined waste oil pit, contains a dark-opaque LNAPL in which PCBs are not detected. The SR-102 LNAPL consists predominantly of waste cutting oil containing chlorinated solvents. The fact that PCBs are not detected in the SR-102 LNAPL indicates that cutting oils or the former waste oil pit are unlikely to have been a source of the PCBs.

Plant historical records indicate that transformers that relied on PCB-oil have not been present on the Delphi property. The RG&E substation located on Lexington Avenue southeast of the Plant has always served the power needs of the Plant, and the primary electrical transformers serving the facility are and have been located within that Substation. Power is supplied to the plant from the RG&E substation at 11,000 volts. The voltage is reduced to 480 volts at 51 transformers in the plant. Only one of these is an oil-cooled unit. The remaining 50 include 15 that are gas-filled and 35 that are dry-type. As indicated in the Site History Document (pg. 14), the oil-cooled transformer, located in Plant 1, uses a non-PCB cooling fluid.

Response to NYSDEC Comments

NYSDEC comment:

Page 39, Item 7 - Sewers and sewer bedding material frequently acts as a preferential migration pathway for contaminants. If utility workers need to work on the sewers, they could be exposed to contaminated material or groundwater in the sewers or bedding material. Therefore, the potential for contamination to be present in the sewers and bedding material on-site needs to be investigated.

The sewers, particularly near contaminant source areas, need to be inspected to determine if contaminated groundwater or NAPL are infiltrating the lines.

The sanitary and storm sewers are at nearly the same depth as groundwater where they exit the site. Therefore, the Department recommends that test pits should be dug along these sewers near the points where they exit the site to determine if contaminated groundwater infiltrates the bedding in these areas.

Delphi Response:

Delphi proposed in the Work Plan to install soil borings and monitoring wells along underground sewer lines at the facility to evaluate soil and groundwater conditions in sewer-line bedding. (The investigations planned are also designed to evaluate potential impacts associated with the drainage ditch that predated the 48-inch combined sewer pipe.) The proposed investigations will be retained in the next version (draft final) of the work plan when it is submitted to the Department for approval.

Currently, all of the water from underground process sewers, including any groundwater that may have infiltrated the underground process sewers, is treated in Delphi's wastewater treatment plant. Monroe County performs annual sampling and analysis of the discharge from on-site stormwater and sanitary sewers.

Potential Infiltration of Contaminants in Source Areas

On-site sewer lines are generally installed above the water table. The principal exception is the main sanitary sewer line for the plant, which is shown on Figure 2. In its lower reach where it crosses the east parking lot and in the upstream section beneath Plant 1, the sanitary sewer may be below the water table by as much as a few feet.

To evaluate whether contaminated groundwater may be infiltrating the underground storm and sanitary sewer lines at the site, Delphi will collect and analyze approximately 10 water samples from the main trunks of the storm and sanitary sewer lines beneath Plants 1 and 2. Samples will be collected along the sanitary sewer from accessible manholes east of the LL column line in Building 2. Samples will be collected from the main storm sewer at accessible manholes along its entire length beneath Plants 1 and 2. Samples will be analyzed for chlorinated VOCs and PCBs by SW-846 methods. The RI/FS work plan will be revised to reflect these additional proposed investigations.

If site-related contaminants of concern are detected, Delphi will perform the following additional investigations. Sampling of sewer branch lines or intermediate locations along the main lines will be performed as necessary to more specifically identify the areas of likely

contaminant infiltration. Video inspection of the sewer interiors in areas where the sewers pass through apparent source areas will then be performed. The proposed supplemental sewer sampling and video sewer-inspection program will be submitted to the Department for approval in RI/FS progress reports to be submitted in accordance with the terms of the RI/FS consent order.

Potential Offsite Migration of Contaminants in Sewer Bedding

A. Storm Sewer

The discharge section of the facility stormwater sewer is a 48-inch reinforced concrete pipe that discharges into the 7-foot semi-elliptical municipal sewer tunnel in the north facility parking lot. From the facility wastewater treatment building (Building 14 AWTA) north to the connection with the municipal sewer, the 48-inch sewer is a combined sewer that also carries treated process wastewater. The attached copy of Figure 2 from the RI/FS work plan, which has been revised to reflect this and other responses to the Department's comments, shows the corrected locations of the 48-inch facility stormwater sewer and its connection to the 7-foot municipal sewer tunnel.

As shown on Figure 2, the 7-foot municipal sewer leads southeast beneath the north parking lot and exits the site near the location of monitoring well PZ-111. The tunnel is located between (and parallels) the migration control trench and Driving Park Avenue. A plan and section of the 7-foot tunnel was presented in Appendix C of the Site History Document (Haley & Aldrich, February 1999). As shown on that figure, the tunnel was constructed in an open cut dug across the north parking lot area to the point where the top of the tunnel had descended below the top of bedrock. From that point, located near the southeast end of the migration control trench and monitoring well PZ-139, the municipal sewer tunnel proceeds to the southeast in a mined bedrock tunnel lined with concrete.

Previous investigations have included investigation of groundwater conditions along the discharge section of the 48-inch sewer and along the on-site section of the 7-foot sewer tunnel. As shown on the attached Figure 2, shallow and intermediate bedrock wells SR- and R-110 are installed in the north parking lot adjacent to the 48-inch combined sewer near the point where the sewer passes through on oil-water separator. Further downstream along the 48-inch sewer, PZ-140 is installed close to the point of connection with the municipal sewer tunnel. Bedrock wells PZ-133 through –139 monitor groundwater conditions at the water table adjacent to the 7-foot tunnel downstream of PZ-140. Installation an off-site intermediate bedrock well is planned for in the RI/FS to monitor groundwater conditions at the level of the tunnel at a location downstream of PZ-139.

The invert elevation of the 48-inch sewer at SR-110 is 489.1 feet, and since operation of the migration control trench began in 1992, water table elevations at SR-110 have been equal to or less than 486 feet. Since operation of the migration control trench began, concentrations of groundwater contaminants in samples from SR-110 have dropped steadily from a maximum of 16.3 parts per million (ppm) total volatile organic compounds (VOCs) to less than 0.1 ppm total VOCs.

Since operation of the migration control trench began, the water table elevation at PZ-140 has consistently been at or below the invert elevations of both the 48-inch sewer (486 feet) and the

7-foot tunnel (484 feet) at the point of connection. During that period, concentrations of groundwater contaminants in samples from PZ-140 have remained relatively constant (0.4 to 0.8 ppm total VOCs).

The available data indicate that test pit excavations along the discharge section of the 48-inch combined sewer or the municipal sewer tunnel beneath the north parking lot would not serve to characterize groundwater conditions or the potential for offsite migration of contamination along these features. The existing monitoring well network augmented with the RI/FS well installations planned should serve that purpose. Therefore no further investigations are proposed.

B. Sanitary Sewer

The main sanitary sewer line for the facility crosses the east parking lot and exits the site near the point where it connects off-site to the 7-foot tunnel described above. At an off-site location just east of the site boundary, the 15-inch diameter sanitary sewer pipe drops down into a bedrock shaft and then turns north and crosses to the 7-foot tunnel through a 50-foot-long narrow tunnel mined in bedrock. The locations of the sewers are shown on Figure 2. An as-built plan and section drawing for the sanitary sewer line in this area was presented in Appendix A of the Work Plan for 1998 Explorations, East Parking Lot Area (October 1998), and a copy of that drawing is attached. As shown on the drawing, the sewer is bedded in a narrow trench cut into the top of bedrock. Both the top and the bottom of the drop shaft for the sewer are plugged with concrete around the sewer pipe.

Existing monitoring well PZ-115 is located adjacent to the sanitary sewer line at the property line. PZ-115 is an overburden-bedrock interface well screened across the water table. Groundwater elevations in PZ-115 have historically been within a few feet above or below the reported invert elevation of the sewer at the top of the shaft (496.2 feet). Groundwater contamination at PZ-115 has included traces of chlorinated VOCs. LNAPL has not been detected at PZ-115.

Upstream of PZ-115, the sanitary sewer passes near the south edge of the Tank Farm Area LNAPL plume. Although the PZ-115 data and the reported presence of concrete plugs in the drop shaft for the sewer pipe indicate that off-site migration of LNAPL along the sewer may be unlikely, Delphi proposes to add a test pit to evaluate groundwater conditions within the bedding material around the sanitary sewer. A test pit will be excavated, if possible, near PZ-115 at the proposed test-pit location indicated on Figure 2. If it is feasible to dig a test pit into the bedding material at the proposed location and groundwater or LNAPL is encountered in the excavation, the groundwater and, if present, LNAPL will be sampled and analyzed for chlorinated VOCs and PCBs by SW-846 methods. Observations of soil and groundwater conditions and evidence of contamination and/or potential offsite flow of groundwater in the test pit will be recorded and reported in the RI/FS report. The RI/FS work plan will be revised to include this additional proposed investigation.

Response to NYSDEC Comments

NYSDEC comment:

Page 41, The Cyanide Storage Area - How was solid cyanide salt waste disposed? Could any of this material have been disposed or released on site?

Delphi Response:

Solid cyanide salt waste was shipped offsite as a hazardous waste by licensed haulers. There is no record of any of this material being disposed or released on site.

Considerable soil and groundwater testing for cyanide is included in the RI Work Plan. That sampling addresses investigation of possible past onsite waste disposal and other issues which relate to potential cyanide contamination.

NYSDEC comment:

Page 45, Section V - There are numerous reference errors throughout the work plan. For example, the Health and Safety Plan is incorrectly referenced as Appendix B. In addition, throughout the text of the Work Plans most of the references to Appendices are incorrect.

Delphi Response:

The reference errors cited will be corrected. All other references to the Appendices will be reviewed and corrected.

NYSDEC comment:

All soil, groundwater, and NAPL samples should at a minimum be analyzed for VOCs, SVOCs, PCBs, cyanide and TAL metals.

Delphi Response:

There is a considerable amount of information that is available on the history of operations at the site, and there is an equally considerable amount of information that has already been collected on environmental conditions in the subsurface at the site. Delphi believes that the existing information can and should be used to focus the analytical program for the RI/FS on compounds that are likely to be present at the site.

Delphi believes that, in general, a broad list of analytical parameters should only be applied to those areas of the site where the previous investigations have not adequately characterized the environmental conditions and there is a potential for the presence of contaminants that have not been previously detected at the site. However, Delphi is willing to also perform analysis of a broad range of parameters on a limited basis in areas previously investigated to provide assurance that the previous characterization of site contaminants has been thorough and complete.

As described in the Data Summary Report, site groundwater has previously been sampled for

Response to NYSDEC Comments

CLP analysis of the complete list of the U.S. EPA's Appendix IX parameters. The groundwater samples so analyzed were from the 103 and 110 well clusters located on the north side of the facility within or downgradient of the area used by Delphi for landfilling in the past. These analyses detected only those VOCs, cyanide, and metals which had been previously detected at the site using standard SW-846 analytical procedures, and the concentrations detected were equivalent to those previously detected. Appendix IX semi-volatile organic compounds, dioxins, furans, pesticides, herbicides, PCBs, and sulfide were not detected in the samples analyzed.

For the following reasons Delphi does not believe that analysis for SVOCs and PCBs is warranted for all soil and groundwater samples:

- PCB and SVOC compounds have high octanol-water partitioning coefficients. Most SVOCs and all PCBs are not particularly water-soluble. They preferentially adsorb onto soil particles and are not typically mobile in groundwater to an appreciable extent. PCBs strongly partition into NAPL because of their preferential solubility in oil. Detections of PCBs in groundwater are almost always linked to silt particles or oily sheen in the water samples.

- The cutting oils used at the Plant throughout its history consist almost entirely of semivolatile hydrocarbons. Speciating individual SVOCs in the soil and groundwater at every location is less important in the selection of a preferred remedial alternative than quantifying the amount of oil, solvent, or test fuel contamination and identifying the extent of LNAPL. Delphi believes that analyzing PCBs and SVOCs in LNAPL where it is found at the site will, in conjunction with limited analysis of soil and groundwater samples for PCBs and SVOCs, provide the necessary data to characterize the nature and extent of contamination by PCBs and SVOCs at the site.

Delphi believes that for characterization of potential and currently unknown contamination by metals at the site, the Priority Pollutant List (PPL) metals are a more appropriate group than the TAL metals. The PPL metals include all of the TAL metals except aluminum, barium, calcium, cobalt, iron, manganese, magnesium, potassium, sodium, and vanadium. Delphi proposes to perform characterization of site soil and initial RI/FS monitoring of groundwater quality using the PPL list to identify which if any of the PPL metals not previously investigated are compounds of concern at the site. We believe it would then be appropriate to conduct subsequent groundwater monitoring for only the "site metals" (those metals known to have been used at the site, including cadmium, chromium, copper, lead, mercury, nickel, and zinc) and any other PPL metals identified as compounds of concern in soil or groundwater.

Therefore, in response to the Department's comment on analytical parameters, Delphi proposes to revise the analytical program as follows:

- For soil sample analyses, analysis of Priority Pollutant List (PPL) metals will be substituted for the site metals list where metals analysis is already planned. PPL metals analysis will also be added for samples from areas where no metals analysis was originally proposed if metal staining of the soil samples is observed. Table III of the RI/FS work plan has been revised to reflect this proposed change. A copy of the revised table is attached.

Response to NYSDEC Comments

- For soil sample analyses in areas where analysis for VOCs is not already planned, analysis for VOCs will be added for soil samples containing field-detectable VOCs. For soil sample analyses in areas where analysis for TPH, SVOCs, and/or PCBs is not already planned, analysis for TPH and PCBs will be added for samples exhibiting visible oil staining or contaminant odors. Table III of the RI/FS work plan has been revised to reflect the proposed changes.

- For the new wells proposed in the Work Plan, initial groundwater samples will be analyzed for VOCs, SVOCs, PCBs, PPL metals, and cyanide. In addition, groundwater samples collected during the initial RI sampling event from a specific list of 17 of the existing onsite wells will be analyzed for all those parameters. The specific list is shown on Table IV, attached, which is a new table for the RI/FS work plan that specifies the revised RI groundwater-quality monitoring program. The program proposed on Table IV includes a reduced list of analytical parameters for initial RI/FS sampling at other existing site wells and for subsequent RI/FS sampling events at all wells.

- For the new wells installed during the RI/FS in which LNAPL is encountered, initial LNAPL samples will be analyzed for VOCs, SVOCs, PCBs, fingerprint, and physical parameters (flashpoint, specific gravity, and viscosity). In addition, LNAPL samples collected during the initial RI sampling event from a specific list of 10 of the existing onsite wells where LNAPL is currently present will be analyzed for all those parameters. The specific list is shown on Table IV. The program proposed on Table IV includes a reduced list of analytical parameters for initial RI/FS LNAPL sampling at other existing site wells and for subsequent RI/FS sampling events at all wells.

The text of the RI/FS work plan will be revised to reflect the proposed changes in the analytical program.

NYSDEC comment:

Page 45, Section 5.1 - This section should clearly state that the objective of the RI is to define the nature and extent of contamination. If after the work plan has been implemented, this objective has not been met, additional work may be necessary.

Delphi Response:

In response to the Department's comment, the following text will be added to the beginning of Section 5.1:

"The objective of the RI is to identify the nature and extent of contamination. This objective will be accomplished by implementing this RI Work Plan. Should the investigations proposed in this Work Plan be found to be insufficient to identify the environmental conditions of concern, Delphi will, in the quarterly RI/FS progress reports, submit proposals for additional work to the Department for its review and approval."

Response to NYSDEC Comments

NYSDEC comment:

Page 45, Section 5.2 - An additional well cluster should be installed along Driving Park to adequately define off-site conditions and evaluate the effectiveness of the fractured bedrock trench. The proposed locations are approximately 1000 feet apart. This is too great and should be reduced through the installation of an additional cluster.

Delphi Response:

Delphi has previously requested that the State-funded investigation of the Photec site, located north of the Delphi site on the north side of Driving Park Avenue, include installation of an intermediate bedrock well adjacent to the shallow well already planned along the east boundary of the Photec site. If this could be done, Delphi could then adjust the locations of the two proposed offsite RI/FS well clusters planned along Driving Park Avenue to provide tighter spacing of the off-site wells.

Delphi proposes that the actual well locations be selected in the field in consultation with NYSDEC and landowners.

NYSDEC comment:

Page 46, Section 5.2-A-1, third paragraph/Appendix E - This paragraph indicates that wells will be developed according to the procedures described in Appendix D (should be "E"), yet there is only a short paragraph in Appendix E discussing a development. This discussion does not adequately address all the pertinent issues. Monitoring wells should be developed using pumping and surging until temperature, conductivity, and pH have stabilized and turbidity of less than 50 NTUs has been achieved. If drill water is lost to the formation, that volume of water should be removed from the well as the baseline, followed by the development procedures described above. Well evacuation will be accomplished using a decontaminated bailer or a disposable polyethylene bailer or a pump and dedicated/disposable polyethylene tubing.

Delphi Response:

In response to the Department's comment, the following section will be added to the end of Appendix E:

"H. Well Development

"Upon the completion of a well, it will be developed to provide optimum communication with the formation. Four development techniques have been identified for use at the discretion of the geologist in charge of the fieldwork. The methods are mechanical surging with a rubber surge block followed by pumping or bailing; surging and pumping at the same time; over-pumping using a submersible pump; and bailing. The amount of water removed during development will be recorded on the Monitoring Well Development form (attached). If any drilling water was lost to the formation during drilling, development will continue until at least an equal volume has been recovered.

Response to NYSDEC Comments

"Development will continue until the conductivity and pH have stabilized and the development water is relatively free of sediment. If possible, development will continue for up to three hours until a groundwater turbidity of less than 50 NTU is achieved. Development at some wells may, however, not reach the target level of 50 NTU within a reasonable time period.

"The development water will be contained in tubs or 55-gallon drums, then decanted and treated through the on-site groundwater peroxidation treatment system, located in the wastewater treatment building."

NYSDEC comment:

Page 47, Section 5.2-A - Any laboratory that is used needs to be a NYSDOH ELAP, CLP certified laboratory for all sample media/analyses to be included as a part of the RI. Please see the comment below regarding the QAPP.

Delphi Response:

Delphi proposes to perform a significant portion of the project analyses using ASP/CLP methods and protocols, but to perform some of the project analytical work using non-CLP and non-ASP methodologies. We believe that ASP protocols and CLP category B deliverables for all RI/FS analytical work is an unnecessary and overly burdensome requirement for this site. The considerable amount of information on the history of site operations and on site conditions provide an excellent basis for limiting the focus of the analytical program once collection of representative ASP/CLP-level data confirms that the compounds of concern have been identified at the site. Previous CLP analysis of site groundwater samples for Appendix IX parameters has not detected contaminants that were not detected by non-CLP methods.

Delphi proposes that, for soil sample analyses, ASP analytical protocols and CLP category B deliverables will be limited to a representative portion of 25% of project soil samples, as specified on Table III. For the groundwater monitoring program, Delphi proposes that ASP analytical protocols and CLP category B deliverables will be limited to the initial RI/FS groundwater and LNAPL samples from all new on-site and new off-site wells and the initial RI/FS groundwater samples from 17 representative existing on-site wells and LNAPL samples from 10 existing on-site wells, as specified on Table IV. Analysis of initial project samples from other existing onsite wells and analysis of all samples from subsequent sampling events would be performed using standard SW-846 methods.

Delphi has recently solicited bids for laboratory services from several laboratories. Delphi proposes to have some analytical work for the project performed by FREE-COL Laboratories, an ELAP lab that is not CLP-certified, and to use a second ELAP lab which is also ASP/CLP-certified for analyses of those samples on which ASP/CLP analyses will be performed.

Delphi also proposes to submit splits of 3 LNAPL samples and 3 groundwater samples from the initial sitewide groundwater-sampling event to both labs for analyses of the same parameters. The LNAPL parameters will include TCL VOCs, SVOCs, and PCBs plus flashpoint, viscosity, specific gravity, and GC fingerprint. The groundwater parameters will include TCL VOCs, SVOCs, and PCBs, cyanide, and PPL metals. The non-CLP lab will perform and document the analyses using standard SW-846 methods and protocols, and the

Response to NYSDEC Comments

CLP-certified lab will use ASP and CLP methods and protocols and provide CLP Category B deliverables. The split-sample analyses will provide an extra measure of QA/QC for the project, and will permit us to identify any shortcomings of the non-ASP lab in the identification of contaminants of concern.

We request that, as it considers this proposed alternative, the Department take into account the quality assurance which will be provided by the laboratories' adherence to requirements of the ELAP program and to the requirements of the analytical methods specified in the work plan. We also request that the Department take into account the quality assurance which will be provided by factors such as the large size of the RI/FS sample population and the large volume of previous data for the site.

The previous analytical data for the site has been generated for the most part by FREE-COL Laboratories using SW-846 methods and other industry-standard methodologies. It is our understanding that, given the extensive history of testing and the internal consistency and validity of the data previously generated, the Department will allow Delphi to use its existing analytical database in completing the RI.

NYSDEC comment:

As you are aware the proposed evaluation of slug test data will violate some of the assumptions of the cited methods especially that the aquifer medium is homogeneous and isotropic.

Delphi Response:

Compliance with all hydrogeologic assumptions rarely occurs when applied to natural subsurface conditions. Recognizing that there are limitations, the proposed slug-testing methods are intended to provide approximate, order-of-magnitude values for an aquifer's hydraulic conductivity and will readily identify tight versus permeable areas of the formation. Taken as a group, the slug-test data may allow an estimation of groundwater flow-through and other conclusions important to the RI.

The Bouwer & Rice slug-test evaluation technique is generally accepted to provide adequate hydraulic conductivity data for stratified-unconsolidated and fractured-bedrock systems. However, if the Department would prefer use of a different slug-test evaluation method, we would be pleased to consider suggested alternatives.

NYSDEC comment:

Page 47, Section 5.2-B - Well SR-216 and well SR-230 are located about 100 feet apart in Plant 2 and both wells contain "LNAPL" (Data Summary Report, September 1998). The NAPL recovered from SR-216 is mostly comprised of trichloroethene and tetrachloroethene with lesser amounts for 1,2-dichloroethene and xylenes, but the NAPL from SR-230 does not contain trichloroethene or tetrachloroethene and is mostly comprised of 1,2-dichloroethene and xylenes.

The specific gravity for the NAPL in SR-216 was measured to be 0.9, however, such high

concentrations of chlorinated VOCs (dense constituents) suggest that contaminants were introduced into the environment near SR-216 as a dense phase. Please explain why NAPL from SR-2 16 contains such high concentrations of trichloroethene and tetrachloroethene, but neither chemical has been detected in NAPL from SR-230, which is only 100 feet away from SR 216.

The possible presence of DNAPL needs to be examined beyond the installation of a single deep well as described on page 47. Deep wells should be installed near areas where high concentrations of chlorinated organics have been documented. For example, several locations should be included near the former degreaser areas.

Please note that DNAPL does not necessarily flow with or in the same direction as groundwater. Therefore, reference to groundwater flow directions such as upgradient and downgradient only applies to dissolved phase flow and does not necessarily apply to NAPL. It is more appropriate to study the bedrock features, such as strike and dip of bedding planes and fractures, to determine where to install wells to investigate the presence of DNAPL.

Delphi Response:

LNAPLs at the site primarily consist of cutting oils and Stoddard solvent test-fuel mixtures. These LNAPLs sometimes also contain chlorinated VOCs. The percentage of VOCs detected in SR-216 LNAPL has ranged from 12.7 to 4.2%, and in SR-230 LNAPL VOC concentrations have ranged from 0.9 to 0.1%. The remaining content of the LNAPLs is mineral-oil-based cutting oil and Stoddard solvent.

While it is true that the concentration of VOCs in the LNAPL varies, it is not known if these variations signify different LNAPLs or one contiguous LNAPL body containing variable ranges of VOCs. Furthermore, the timing and sequence of the commingling of the LNAPL with the chlorinated VOCs is not known. The relative abundance of TCE and PCE in SR-216 LNAPL is most likely because of the well's close proximity to a former solvent reclaim still and a number of former degreasers which used TCE and PCE.

The Department's comment concerning the possibility of a release of solvent as a dense phase is plausible. However, it is also possible that the release or releases consisted of LNAPL containing chlorinated VOCs. Likewise, if a DNAPL release of chlorinated solvent had occurred, it would be likely to dissolve into an LNAPL layer if an LNAPL was already present. Therefore, the elevated-levels of chlorinated VOCs in some LNAPL samples may in fact indicate a lack of DNAPL in the subsurface.

In the absence of pumping or strong hydraulic gradients, LNAPL is relatively immobile in the subsurface; it tends to remain near where it was spilled and within areas of the formation that are already LNAPL-saturated. Therefore, we envision that migration of LNAPL beyond the source areas may have been limited and we expect that the relative concentrations of chlorinated VOCs in the LNAPL won't be uniform from place to place.

The presence of 1,2-dichloroethene (DCE) and vinyl chloride in the SR-230 LNAPL is interpreted to reflect an older TCE release that has substantially degraded. Because distance from a TCE/PCE source often correlates with a greater abundance of the degradation byproducts DCE and vinyl chloride, LNAPL present near SR-230 could, over time, partition DCE and vinyl chloride from the groundwater, resulting in the observed concentrations of

those compounds in the LNAPL.

The potential for significant DNAPL migration away from the source areas at the Lexington Avenue site appears to be low. The regional dip of bedrock strata is to the south at approximately 58 feet per mile. This very slight dip is unlikely to induce significant down-dip migration of DNAPL that may be present. The experience of Haley & Aldrich has shown that DNAPL migration in the down-dip direction in the Rochester area is typically limited to a few tens of feet from the source.

The relatively low hydraulic conductivity of the deep Rochester Shale bedrock at the site would also tend to limit the vertical migration of any DNAPL that may be present in the subsurface. And even though vertical fractures in bedrock would, if present, be significant in influencing DNAPL penetration and groundwater flow, the pattern and precise location of vertical fractures in bedrock is difficult to predict or define, especially in areas where the bedrock is not well exposed.

Finally, the detection of DNAPL in wells is a rare occurrence even at sites where the presence of DNAPL is known or is considered likely. Therefore, characterizing dissolved-phase-flow and groundwater-quality conditions appears to be the best way to define DNAPL conditions at the site.

The previous proposal to install a deep-bedrock monitoring well outside the Plant and downgradient of the identified source areas was based on the logic that if DNAPL is present in the deep-bedrock, then a down-gradient deep-bedrock monitoring well should detect a strong VOC plume. In response to the Department's comments, one additional deep-bedrock monitoring well will be added to the RI program at a location outside the south wall of Plant 1 at a location upgradient of Degreaser Investigation Study Area 5. The proposed location is shown on the attached copy of Figure 2. The RI/FS work plan will be revised to reflect this additional work.

Following the installation of the supplemental deep-bedrock wells, there will be a total of seven deep-bedrock monitoring wells at the site (two upgradient and five downgradient wells). To date, the results of groundwater sampling of deep-bedrock monitoring wells have not detected contamination by site-related compounds of concern, including potential DNAPL constituents such as PCE, TCE, and DCE. If DNAPL is present in the deep-bedrock under the degreaser source areas, one or both of the two new proposed deep-bedrock monitoring wells should encounter significant levels of dissolved chlorinated VOCs. However, if significant VOC concentrations are not detected in one or the other of the two additional deep wells, the monitoring network for deep-bedrock groundwater at the site will be considered complete.

NYSDEC comment:

Page 49, Section 5.2-D - If Delphi intends to "fingerprint" the PCBs at the site in an attempt to identify the source(s), it will be necessary to sample/analyze all suspected sources for direct comparison purposes. Without "fingerprinted" sample results a direct comparison can not be made with a suspected source (e.g., the RG&E facility discussed previously in the Work Plan).

Response to NYSDEC Comments

Delphi Response:

In proposing to fingerprint the PCBs in LNAPL, it is our intent to determine if there are identifiable differences in the types of PCBs or PCB mixtures present in the LNAPLs at the site. We also hope that the fingerprinting will provide indications of what the source material for the PCB contamination may have been. However, we believe it may be counter-productive to assume that fingerprints of PCBs in site LNAPLs should closely match the fingerprint of source materials.

We suspect that the PCBs that are present in LNAPLs at the site are contaminants that have been scavenged by the LNAPLs from sources other than those that are the sources of the LNAPLs. The possibility that this is the case for Building 22 LNAPL was described above. Similarly, we believe the PCBs detected in the LNAPL present in the east parking lot area of the Delphi site may have been picked up by the LNAPL from source material released at an offsite location such as the RG&E substation.

The LNAPLs that contain PCBs are composed primarily of cutting oils and/or petroleum solvents or test fuels. The site LNAPLs may differ significantly in composition from the transformer or capacitor oils or other PCB-containing materials that were the original sources of the PCBs. It is likely that the process of the scavenging of PCBs from source areas by migrating LNAPL would result in a mix of PCB congeners that would differ from the mixture of PCBs present in the original source material. Furthermore, former PCB-containing electrical capacitors were removed from the facility in the 1980's, and therefore samples of the capacitor oils are not available for fingerprinting now. No other known PCB-containing equipment is or was present at the Delphi Plant.

If either the Building 22 or east parking lot LNAPL is found to present a consistent PCB fingerprint, then it may be possible to use the fingerprint to narrow the focus of efforts to determine likely source areas or materials. Fingerprinting of samples of likely source materials, such as transformer oils that have been used in the past at the RG&E substation, could then be performed if samples of the materials are available.

NYSDEC comment:

All laboratory analyses, including PCB analyses, must be performed at an ELAP, CLP approved laboratory.

Delphi Response:

As indicated above, we are proposing instead to perform all analyses at laboratories which are certified under NYSDOH's ELAP program, and to have a CLP-approved ELAP laboratory perform ASP and CLP analyses on a specified portion of the project soil, groundwater, and LNAPL samples.

Response to NYSDEC Comments

NYSDEC comment:

The vertical and lateral extent of all the LNAPL areas needs to be defined.

Delphi Response:

Delphi acknowledges that the extent of LNAPL at the site has not yet been defined, and also acknowledges that the potential presence of LNAPL from sources on the Delphi site in offsite areas has not yet been investigated. Delphi intends to characterize the LNAPL areas and believes that the RI/FS work plan addresses the need to do so.

Where LNAPL is present on site, Delphi believes that there are practical and reasonable considerations that should limit the amount of subsurface RI explorations to be performed to define the extent of LNAPL on site. These include the potential operational and financial burdens that a detailed delineation of all on-site LNAPL areas would impose. Delphi believes there is a strong possibility that a preferred remedial alternative addressing LNAPL within the interior of the site can be identified to the satisfaction of Delphi and the Department without a detailed definition of each individual LNAPL plume.

Delphi acknowledges that it will not be possible to identify a preferred remedial alternative or alternatives for the site without first identifying the off-site extent of LNAPL from sources on the Delphi site. On-site LNAPL appears to present a potential off-site issue in the east-parking lot area. In the area of the north parking lot north of the migration control trench, LNAPL is present at wells along the 7-foot municipal sewer tunnel. Existing data indicate, however, that the LNAPL does not extend to the north boundary of the site. In these areas, Delphi will re-evaluate the need for characterization of the extent of LNAPL on the basis of the information gained from the new RI wells proposed in the work plan.

It may be necessary, for example, depending on the results of the RI, to add explorations along the Lexington Avenue and Driving Park legs of the municipal sewer tunnels in the area east of the site. Proposed work plans for such explorations would be submitted for the Department's review and approval in the quarterly RI/FS progress reports required under the consent order.

NYSDEC comment:

Page 49, Section 5.2-E - Initially, groundwater monitoring of the newly installed wells should be performed on a quarterly basis. Groundwater elevations for the entire site should be collected quarterly to obtain information on seasonal variations. The plan states: "The list of wells to be sampled and parameters to be analyzed will be submitted to NYSDEC prior to each sampling event." Please note that the monitoring array and parameter list will need to be negotiated with the Department and changes from the negotiated plan will require prior Department approval.

Delphi Response:

Delphi agrees to obtain quarterly groundwater-level readings from the new RI wells for the first two years. This information will provide further information on seasonal variations and

drawdown.

Delphi also agrees to quarterly water-quality testing for the new off-site RI wells. However, quarterly sampling of on-site wells is unnecessary given the large volume of previous groundwater-testing data (summarized in the September 1998 Data Summary Report). Furthermore, quarterly sampling of all of the 150 or more wells which will be included in the RI would entail a cost of several hundred thousand dollars per year for the analyses and the associated sampling and data validation, evaluation, and reporting.

Therefore, Delphi proposes the following groundwater sampling and analysis program, the details of which are summarized on the attached Table IV:

- new offsite RI wells to be sampled quarterly for the first two years after installation and then annually thereafter.
- new on-site RI wells to be sampled semi-annually for the first two years after installation and then annually thereafter.
- existing site wells be sampled annually during the RI.

NYSDEC comment:

Page 50 Degreaser Investigations - Degreaser 39 and the northwestern location of degreaser 17 should be added to the areas to be investigated. Any other degreasers that have not been investigated should be added to the list of areas to be investigated. Degreaser Investigation Area # 6 should be labeled on Figure 2.

Delphi Response:

The northwest location of Degreaser 17 shown on Figure 2 of the Work Plan is a drafting error. No degreaser was present at that location. The correct locations are shown on the Degreaser Location Map, Figure 3 of the Site History Document. Figure 2 of the Work Plan has been corrected by deleting this error and by adding the location of Study Area 6.

Degreaser 39 was a barrel degreaser for batch-cleaning small parts, and it had no subgrade features. Previous soil-gas testing at batch Degreasers 11 and 12, which were operated in a similar manner, found no significant soil contamination. Delphi therefore believes investigation of former Degreaser 39 is unnecessary.

NYSDEC comment:

Page 52, Section 5.3-B-1 - The statement is made that "the floor of pit 20 is constructed approximately 9 feet below the top-of-bedrock." What are the specifications of this tank and are there other tanks/subsurface features which need to be investigated as potential pathways for preferential migration of contamination?

Delphi Response:

Pit 20 contains steel tanks set in a concrete vault. The vault also contains associated feed lines

and oil-filtration equipment. The pits themselves are unlikely sources of releases of cutting oils to the environment. While many of the tank pits extend to the top-of-bedrock, only pit #20 was excavated into the bedrock. Because of this feature, the RI includes an intermediate-bedrock well east of this pit.

Delphi believes that it is more likely that losses of cutting oils occurred from fittings in the shallow pressurized feed lines installed beneath the floor of the plant. Losses of cutting oils may also have occurred from cracks in the oil- and scrap-metal-return trenches leading to the pits. Investigation of each of these lines and trenches would be impractical. The investigations proposed in the RI/FS work plan will, however, be sufficient to characterize LNAPL conditions in the potentially affected areas.

NYSDEC comment:

Page 52, Section 5.3-C - In evaluating the potential impact from the tubing mill operation, soils should be sampled for metals not just groundwater as the last sentence of this paragraph implies.

Delphi Response:

No releases of mercury are known to have occurred, and there are no known features of the operation or associated equipment, structures, or locations that are likely points of or pathways for release to the subsurface. Since groundwater would be the primary potential-contaminant-migration pathway if an undetected release of mercury had occurred below the plant floor, the activities proposed in the RI/FS work plan focussed on investigation of groundwater quality downgradient of the former location of the tubing mill operation.

If during more than one sampling event mercury is detected at concentrations above 0.002 ppm in groundwater samples from wells located downgradient of the former tubing mills area, Delphi will develop a focused soil-sampling program and submit it for Department approval. Any proposals for additional work will be presented to NYSDEC in the quarterly RI/FS progress reports.

NYSDEC comment:

Page 53, Section 5.3-D - It is unclear which specific areas are being addressed by this section.

Delphi Response:

The beginning of Section 5.3 D will be changed to read as follows:

"D. Stoddard Flow-Test Areas

Sumps in the Stoddard Flow-Test Areas will be investigated by soil-vapor testing. The soil-vapor sampling and analysis methods are described in Appendix H. A limited number of soil-vapor sampling points will be deployed across the rest of each former flow-test area. The Stoddard flow-test areas are shown on Figure 2 and they include:

Response to NYSDEC Comments

As indicated above, Delphi does not believe that installing a monitoring well in all hydropunch sampling locations is appropriate. The Work Plan allows for the possibility of installing overburden-monitoring wells if subsurface conditions warrant, for example if visual evidence of free LNAPL is present in the soils at a particular boring. Furthermore, any apparent contamination identified by the groundwater quality data from the hydropunch samples will be evaluated, and if necessary additional investigation to determine the nature and extent of contamination will be proposed.

NYSDEC comment:

Page 56, Section 5.5-C - It is unclear what circumstances will dictate installation of wells at these locations. The plan should clearly state that wells will, in fact, be installed.

Delphi Response:

In response to the Department's comment, Delphi agrees that the boring planned at the former incinerator will be completed as an overburden monitoring well regardless of the soil conditions observed during drilling. Section 5.5 C of the Work Plan will be modified accordingly.

NYSDEC comment:

Risk Assessment, beginning page 57 - If it is obvious that a particular pathway needs to be remediated, a quantitative risk assessment is unnecessary. Instead, a qualitative risk assessment can be performed which acknowledges that a particular pathway will be eliminated through remediation.

Delphi Response:

In response to the Department's comment, the following text will be included at the end of Section 5.6 A:

"If it is obvious that a particular pathway will be remediated or will be removed by institutional or engineering controls, a quantitative risk assessment is unnecessary. In this case, a qualitative assessment will be performed describing how the remedy will remove the exposure pathway."

NYSDEC comment:

Page 58, Section A - Please add: "Utility worker exposure to contaminated groundwater or waste material in sewer bedding" and any other relevant potential future exposure pathways to the listed exposure scenarios.

OSHA guidelines should not be used to determine a level of "acceptable risk" for facility or

utility workers since their exposures to hazardous waste would be in addition to any occupational exposures that they may have. OSHA guidelines should only be used for worker exposure directly related to their job.

Contaminants of concern (COCs) can not be confidently established unless samples are analyzed at an ELAP CLP approved laboratory (Work Plan, Appendix B, Quality Assurance Project Plan, page 2, Section C). Please use data from an ELAP CLP approved laboratory as a basis for determining contaminants of concern.

Delphi Response:

Delphi's proposed alternative to the mandatory use of a CLP lab for all project analyses was presented above.

Delphi has considered the possible risk scenarios associated with the site and in response to the Department's comment, the end of Section 5.6 A will be modified to read as follows:

"Potential exposure routes for the general public, Delphi workers and contractors, and offsite utility workers are linked to ingestion, inhalation, and dermal contact with contaminants in soils, groundwater, LNAPL, soil-vapor, and airborne soil particles. Potential exposure scenarios include, but are not limited to:

- Utility worker exposure to contaminated groundwater or waste material or to VOCs off-gassing when working in sewers or sewer bedding,
- Public exposure to contaminated groundwater via ingestion or dermal contact,
- Public exposure to VOCs off-gassing from groundwater into indoor air,
- Public exposure to vapors or airborne dust from excavations,
- On-site excavation causing potential site worker exposure via inhalation, dermal contact, or ingestion of contaminants,
- Site worker exposure to airborne dust or vapors,
- Site worker inhalation of vapors off-gassing from the subsurface soils, groundwater, or LNAPL into ambient air."

NYSDEC comment:

Page 58, Section B - The upper 95% confidence level, not the average, should be used to calculate the associated risk. So that contaminant concentrations are not diluted, risks need to be assessed by individual area rather than site wide.

Delphi Response:

In response to the Department's comment, the second paragraph of Section 5.6 B. will be changed to read as follows:

"Exposure intake estimation will integrate population, activities, and exposure pathways into exposure scenarios representing reasonable maximum exposure (RME) conditions for the evaluation of human health risk. The RME determined for each potential exposure scenario will use average intake parameters and the 95% upper confidence level of the concentrations of

COCs detected, or the maximum detected COC concentration, whichever is lower. Risks will be calculated for each area of potential environmental impact. Exposure estimation will be measured in terms of Absorbed Dose, which accounts for COC concentration, intake rate, exposure frequency and duration, absorbed fraction, body weight, and the extrapolated averaging time of exposure."

NYSDEC comment:

Page 59, Section 5.6-C - The ecological risk assessment should be performed/documented according to the procedures identified in the guidance document entitled Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Site, dated October 1994. Please find a copy attached.

Delphi Response:

Delphi believes that the urban setting of this site appears to obviate the need for a Fish and Wildlife Impact Assessment (FWIA). The only potential impacts from site conditions to fish and wildlife that are foreseeable at present are related to the very slight possibility that site contaminants that may be infiltrating the municipal sewer system could pass through the POTW system to the environment. Potential exposures to bird populations from disturbances of site contaminants during remedial actions will be prevented by engineering controls. For these reasons, Delphi believes that an FWIA for this site is not necessary.

NYSDEC comment:

Page 59-60, Section 5.7 - Since available information indicates significant areas of contamination, the effort to perform new IRMs/enhance existing ones should be ongoing and should not wait until the Interim RI Report is prepared.

Delphi Response:

Delphi agrees with the Department's comment. The history of remedial investigations at the site reflects our willingness to voluntarily implement IRMs to address environmental conditions of concern. We have proposed, in a draft of the RI/FS Order on Consent that is before the Department, that the ongoing IRMs (that is the groundwater migration control and treatment system, the Tank-Farm-Area LNAPL recovery system, the Building 22 LNAPL recovery system, and the Study Area 5 vapor-extraction system) be incorporated in the order. New IRMs would be proposed and implemented under the terms of the consent order.

A revised schedule for the RI/FS (Table I of the RI/FS work plan) is attached. As shown on the revised schedule, we now propose that no Interim RI Report will be submitted to address the need for new IRMs or enhancements to the existing IRMs. IRM needs will be evaluated on an ongoing basis, and if additional investigation is needed to complete a required delineation of detected contamination, supplemental work plans shall be presented for the review and approval of the Department in Delphi's quarterly RI/FS progress reports.

Response to NYSDEC Comments

NYSDEC comment:

Page 61, Section 6.1, third paragraph - A comprehensive monitoring program should be developed to evaluate the performance of the existing IRMs.

Delphi Response:

Delphi currently conducts a monitoring program for the existing IRMs. The systems are monitored and maintained on a continual basis to optimize performance and efficiency. The monitoring programs for the existing IRM are described in Appendices D through G of the draft RI/FS consent order that is under review by the Department. The monitoring programs will be continued during the RI/FS.

Delphi agrees that ongoing evaluation of potential enhancements to existing IRMs or addition of new IRMs should continue and action should not necessarily wait until the RI findings are complete.

NYSDEC comment:

Page 61, Section 6.1 & 6.2 - Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The overall remedial goal is to meet all Standards, Criteria and Guidance (SCGs) and be protective of human health and the environment. At a minimum, any remedy selected should eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles. Remedies that address contaminant sources are preferred over those that simply provide containment. Please revise the text accordingly.

Delphi Response:

The appropriate text will be modified accordingly. The revised text will be as follows:

Section 6.1, second paragraph:

"The FS will recommend a preferred remedial alternative, or combination of alternatives, which will meet the remedial action and corrective measure objectives, be cost effective and technologically feasible. The remedial goal is to meet SCGs, or at a minimum, eliminate or mitigate significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through proper application of scientific and engineering principles."

Section 6.2, first paragraph:

"... or operable-unit specific goals designed to be protective of human health and the environment for the current, intended, and reasonably anticipated uses of the site."

Response to NYSDEC Comments

NYSDEC comment:

Page 61, Section 6.2, first bullet - All potential exposure pathways should be eliminated to the extent practical. The use of the US EPA's "acceptable risk levels" to prejudge the need for a remedy is improper. Please modify the text accordingly.

Delphi Response:

The text of Section 6.2, first paragraph, last sentence and the first bullet will be revised to read as follows:

"The remedial action objectives (RAOs) will reflect the goal of eliminating all potential exposure pathways to the extent practical and will be developed on the basis of:

- allowable exposures based on risk assessment analysis conducted on risk scenarios which have, to the extent practical, implemented exposure pathway mitigation/elimination. The risk assessment analysis will be conducted using EPA Risk Assessment Guidance (RAG) Procedures."

NYSDEC comment:

Page 61, Section 6.2, second bullet - Current and future uses of the site are important; however, for these factors to effect the remedy selection process, it is generally necessary to ensure that future uses are controlled. This is typically done through some type of institutional control such as a deed restriction. The Department will certainly consider institutional controls as a part of the proposed remedy.

Delphi Response:

The Department's comments are noted. Delphi intends to institute site-use controls where applicable. Delphi appreciates the Department's willingness to consider institutional control options such as deed restriction as a possible factor in developing site-specific remediation goals.

NYSDEC comment:

Page 61. Section 6.2, third bullet - This is only a partial list of applicable SCGs; there are a number of other SCGs that will need to be added to this list (i.e., 6 NYCRR Part 375, TAGM 4030, etc.).

Delphi Response:

Delphi acknowledges additional SCGs on which site-specific remediation goals will be developed. The text will be edited and the list of applicable SCGs will be modified to include 6 NYCRR Part 375, TAGM HWR-90-4030, the Spill Technology and Remediation Series (STARS) Memo #1 (August 1992), as well as any other applicable and relevant criteria.

Response to NYSDEC Comments

NYSDEC comment:

Page 63, Section 6.3 B - As indicated in my November 16, 1998 letter, the extent to which off-site groundwater flow is being controlled by the fractured bedrock trenches is unclear. Additional wells included in this investigation are needed to determine the effectiveness of this system. Additionally, the water level data indicate that the collection system has little affect on groundwater flow in the deep bedrock zone.

The FS should evaluate all potentially applicable technologies. The evaluation should not be limited to those technologies listed. For example in-situ oxidation should be evaluated.

The third bullet should be expanded to include all permeable treatment walls, instead of limiting the evaluation to funnel and gate systems.

Delphi Response:

As indicated in our response to the Department's comment concerning Page 5, Section 2.2 of the work plan, existing data show that the groundwater collection trench, which extracts approximately 40 gpm, has a significant controlling effect on the shallow and intermediate bedrock hydrostratigraphic zones across most of the site. The available data has also shown drawdown at the northern site boundary, which indicates that groundwater flows toward the trench in the area north of the site. This area would be downgradient of the site in the absence of the migration control system.

The installation of the blasted bedrock zone (BBZ) was not designed or intended to capture deep bedrock groundwater because it was and is evident that deep bedrock groundwater recovery and flow-control was unnecessary and could be counter-productive. Site-related contaminants of concern have not impacted deep bedrock groundwater in the area downgradient of the plant. Furthermore, the deep bedrock zone has inherently poor groundwater quality and contains naturally-occurring BTEX as a result of the petroliferous nature of the Rochester Shale. However, if the planned remedial investigations indicate that there is a need to address deep bedrock groundwater quality, Delphi will address it in accordance with the terms of the consent order.

To address the other comments of the Department, the text of Section 6.3.B, third paragraph will be modified to read as follows:

"Other suitable groundwater capture, containment, and treatment technologies include, but are not limited to:

- site capping,
- in-situ-oxidation,
- impermeable cut-off walls,
- permeable treatment walls,
- in-situ bioremediation,
- and monitored natural attenuation.

"A range of potentially applicable technologies deemed practical will be screened and evaluated for potential application."

Response to NYSDEC Comments

NYSDEC comment:

Page 68, Section 6.6 - "Risk mitigation for potential off-site receptors" is an important aspect of site stabilization, however, it is only one goal/objective of the remedy for this site. Please note that on-site groundwater is also considered a resource of the state to which groundwater standards apply. This section should acknowledge that remediation of contaminant sources will be addressed.

Delphi Response:

Delphi acknowledges the application of groundwater standards to on-site groundwater and the need for remediation of contaminant sources. Section 6.6, first paragraph, will be modified to read as follows:

"An effective, realistic, and practical approach to risk mitigation for potential off-site receptors is to adopt remedial measures which address a site-wide control strategy in conjunction with remediation systems which address source areas. Such an approach is reflected in the current operation of the groundwater migration control, collection, and treatment system which operates in combination with product removal and soil remediation systems operating at various locations within the facility."

NYSDEC comment:

Page 70, Section 6.7 - The use of the scoring sheets from TAGM 4030 is very subjective; they should be used as a tool, not used as the basis for the recommended/preferred remedial alternative. The detailed evaluation/comparative analysis should be used as the basis for this recommendation.

Also, in the second line the phrase "selected as the final remedial alternative for the site" should be changed to "recommended as the preferred remedial alternative". The PRAP, to be prepared by NYSDEC, will include the preferred alternative which does not necessarily have to be what is included as the preferred alternative in the FS submitted by the PRP.

Delphi Response:

Delphi acknowledges the use of the TAGM 4030 scoring sheets as a tool for selecting a preferred remedial alternative. The text of Section 6.7 will be modified to read as follows:

"Based on a consideration of the TAGM 4030 final scoring sheets, and using the detailed evaluation/comparative analysis as a basis for the preferred remedial alternative(s), an alternative or combination of alternatives will be recommended as the preferred remedial alternative for the site."

NYSDEC comment:

Appendix B, QAPP - All analyses should be done using NYSDEC Analytical Services Protocols (ASP) with Category B deliverables by a lab that is ELAP approved for CLP

methodology (for the specific analyses to be performed). The methods listed in Table I do not reflect use of the ASP. For example the following methods should be used for the compounds indicated: VOCs by method ASP 95-1, SVOCs by method ASP 95-2; PCBs by method ASP 95-3. ASP methodology is similar to the SW-846 methods listed in the work plan, however, additional QA/QC is involved. There are also reporting differences. For example Tentatively Identified Compounds (TICs) are routinely reported under the ASP. TICs should be included in the data reports as they can aid in differentiating multiple contaminate sources.

Delphi Response:

The QAPP (Appendix B) will be modified by the addition of ASP protocols and methods to the analytical program. However, as indicated in our previous responses concerning laboratory certification requirements, we believe that ASP protocols and CLP category B deliverables for all RI/FS analytical work is an unnecessary and overly burdensome requirement for this site. We have proposed an alternative analytical program in our previous responses.

NYSDEC comment:

Health and Safety Plan (Appendix D) – Does Dawn Have Issues?

The health and safety plan only addresses personnel involved in remedial activities. The health and safety plan must also provide protection for the community. Enclosed please find a copy of a Community Air Monitoring Plan for guidance.

Facility workers not actively involved in remedial activities should also be considered "the community".

Delphi Response:

Air monitoring will be conducted to protect the community. The Community Air Monitoring Plan (CAMP) supplied by the Department will be incorporated into the RI/FS Health & Safety Plan (HASP). Section 3.8.B.2 will read as follows:

> "2. Community Air Monitoring Plan
>
> Anticipated work at the Delphi facility and subsequent air monitoring procedures can been divided into two categories: work activities conducted inside the Plant and work activities conducted outside the Plant. These scenarios, where necessary, will be addressed separately in this section.
>
> "The NYSDEC-provided Community Air Monitoring Plan (CAMP), as intended, will address the outside work scenario. The inside work scenario varies somewhat from the NYSDEC-provided CAMP protocol inasmuch as interior space and Delphi employee/contractor work assignments, areas, and schedules cannot be anticipated this far in advance of the RI work tasks. Air monitoring action scenarios for inside work activities incorporate CAMP intentions and/or protocol whenever possible.
>
> "In the event that total organic vapor readings in the work area breathing zone exceed

5 ppm above background, real-time air monitoring for volatile compounds at the exclusion zone perimeter will be required. CAMP includes the following criteria:

- If total organic vapor levels exceed 5 ppm above background at the exclusion zone perimeter, work will be halted and monitoring will be continued under the provisions of a Minor Vapor Emission Response Plan, as described below. All readings must be recorded and be available for NYSDEC and NYSDOH personnel to review.

"Minor Vapor Emissions Response Plan

"If the ambient concentration of organic vapors exceeds 5 ppm at the work area perimeter, work will be halted and monitoring will continue. If the vapor levels decrease below 5ppm above background, work activities can resume. If the organic vapor levels are greater than 5 ppm but less than 25 ppm over background at the work area perimeter, work activities can resume provided:

"OUTSIDE WORK:

1. The organic vapor level 200 ft downwind of the work area or one-half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background; AND
2. The vinyl chloride level (as measured with a Draeger tube) at the work area perimeter is less than 0.5 ppm; AND
3. More frequent intervals of monitoring, as directed by the safety officer, are conducted. OR,

"INSIDE WORK:

1. The organic vapor level at one-half the distance to the closest location of the nearest Delphi employees/contractors not involved in the RI activities is below 5 ppm over background; AND
2. The vinyl chloride level (as measured with a Draeger tube) at the work area perimeter is less than 0.5 ppm; AND
3. More frequent intervals of monitoring, as directed by the safety officer, are conducted.

"If the total organic vapor level is above 25 ppm, or the vinyl chloride level is over 0.5 ppm at the work area perimeter, work must be stopped. Downwind (outside activities) or radially outward (from the work area for inside activities) monitoring will be continued to minimize the potential impact to the nearest residential/commercial structure or Delphi employees/contractors, respectively, at the levels specified in the Major Vapor Emissions Response Plan described below.

"Major Vapor Emissions Response Plan

"INSIDE:

If the total organic vapor levels measured at one-half the distance from the work area perimeter to the nearest Delphi employee/contractor work area not involved in RI-related activities is more than 5 ppm over background, then work shall stop and efforts to abate the emission source undertaken until the vapor levels have dropped to

background levels at this location. Vapor levels must return to background levels at this location for work to continue.

"OR,

"OUTSIDE:
If the total organic vapor levels measured 200 ft downwind of the work area, or one-half the distance to the nearest downwind residential or commercial structure (whichever is less) is more than 5 ppm over background, air monitoring must be performed within 20 ft of these structures ("20-ft Zone")

"All active operations at the site shall stop and remain down if any of the following vapor levels are observed within the 20-ft Zone:

1. Total organic vapors at 5 ppm or greater over background; OR
2. Vinyl chloride levels greater than 0.5 ppm.

"If, following cessation of work activities, efforts to abate the emission source are unsuccessful and any of the above levels persist for more than 30 minutes in the 20-ft Zone, the Major Vapor Emissions Response Plan (MVERP) shall be placed into effect. In addition, any of the following **within the 20-ft Zone** will necessitate activation of the MVERP:

- Organic vapor levels greater than 50 ppm over background
- Vinyl chloride levels over 1 ppm.

"Major Vapor Emissions Response Plan Activation

"Upon MVERP activation, the following activities will be undertaken:

1. The safety officer will be notified, all Emergency Response Contacts listed in the Health & Safety Plan will be contacted, including local police authorities; AND

2. Frequent air monitoring will be conducted at 30-minute intervals within the 20-ft Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the safety officer.

"Appropriate personnel will be briefed with regard to the details of the Minor and Major Vapor Emissions Response Plans, including anticipated hazards, safety practices, emergency procedures, and communication pathways, prior to initiating work."

NYSDEC comment:

Particulate monitoring is needed during intrusive activities. Please see the enclosed Community Air Monitoring Plan.

Response to NYSDEC Comments

Delphi Response:

Airborne particulate matter generated as a result of intrusive activities is not anticipated to be a concern during RI-related activities at the site. However, for intrusive activities inside and outside the Plant engineering controls will be instituted to prevent the generation of airborne particles as a result of remedial activities. Examples of engineering controls include using ventilation fans and/or ducting, utilizing water sprays, or using matting or isolating materials to prevent the generation of dust during excavation or drilling activities.

NYSDEC comment:

The health and safety plan states that a l ppm action level for volatile organic chemicals at the site perimeter and work can resume if the volatile organic vapors fall below l ppm or the concentration of organic compounds are within their TLVs (HASP, page 20, Section B, item 2). However, TLVs for hazardous waste exposure are not applicable for people not actively involved in the remedial efforts. Please see the Community Air Monitoring Plan.

Delphi Response:

The site perimeter action levels used to determine whether work halts or continues will be the 1 ppm action level for volatile organic chemicals. TLVs are not anticipated to be used as guidance to upgrade protective equipment or induce work stoppages since for most cases (chemical species) the 1-ppm action level would be the conservative action.

NYSDEC comment:

The air monitoring procedures are outlined in both the "Delphi Health & Safety Procedures Summary" (HASP, page 2, Section 2.1) and in the air monitoring section (HASP, beginning page 19). Each section outlines different air monitoring techniques and is confusing. Please develop a single, all-inclusive air monitoring program which clearly states action levels and prescribed actions for those levels.

Delphi Response:

The "Delphi Health & Safety Procedures Summary" and the air monitoring procedures on page 19 address separate issues concerning air monitoring protocol.

The "Delphi Health & Safety Procedures Summary" provides a brief summary of the procedures and action levels to be implemented by RI workers. The procedures address upgrades in personal protective equipment (PPE) for workers involved in RI-related activities and is based on air monitoring results from within the work-area breathing zone. The actions are specific to both drilling/excavation and sampling activities conducted both within and outside of former degreaser areas.

The HASP air monitoring protocol which began on page 19 provided procedures and action levels designed to protect the community outside the RI-related work area; this includes Delphi

employees/contractors inside the Plant as well as neighboring people, property, and structures outside the Plant property. The protocol provided for air quality monitoring at the perimeter and outside of the immediate work area. In response to the Department's comments this section (Section 3.8.B.2) will be replaced with the CAMP guidelines as provided by NYSDEC. The CAMP similarly provides protection for the neighboring community. The text of the CAMP as incorporated into the HASP is presented above.

NYSDEC comment:

In addition to the map provided, please provide written directions to Strong Memorial Hospital. Prior to initiating work, the site health and safety representative(s) should contact the hospital and emergency responders to determine if there are any specific procedures for handling patients that may be contaminated with hazardous substances.

Delphi Response:

Written directions to Strong Memorial Hospital have been provided in the HASP on the page preceding the map to the hospital. Strong Memorial Hospital and emergency responders will be contacted prior to work regarding specific procedures for handling patients that may be contaminated with hazardous substances.

NYSDEC comment:

Citizen Participation Plan-Appendix A –

The document should be made separate from the work plan so that it can more easily be accessed by citizens. The plan should be placed in a three-ring binder so that pages can be added or replaced as the plan is modified over time.

A citizen participation plan should explain in layman's terms what will be done as part of the RI/FS process and how citizens will be informed and involved during this process. Based on NYSDEC's "Citizen Participation Guidebook," dated June 1998, Region 8 developed a template for citizen participation plans outlining what should be included in a complete citizen participation plan. Attached please find this template to assist you in revising the draft Delphi citizen participation plan. Many of the elements of the current draft plan contain outdated or incomplete information. The template will aid you in including all required elements and updated information in a revised citizen participation plan.

In an effort to communicate consistently with the public, we recommend using "DEC" and "DOH" instead of "NYSDEC" and "NYSDOH" in documents designed for the public. Since we typically say "DEC" and "DOH" when speaking, it is easier for the public to see and hear the same acronym for each agency.

The first paragraph of the draft plan includes a footnote stating that terms defined in the glossary appear in bold the first time they appear in the text. However, there are glossary terms in the first paragraph and throughout the document that are not in bold the first time they

appear in the text. Additionally, the glossary included in the draft plan should be replaced with the Region 8 Citizen's Glossary of Environmental Terms. The Citizen's Glossary is an updated and enlarged form of the glossary included in the draft plan.

For the following comments, changes to text are underlined. Terms in bold are appearing in the draft document text for the first time.

Section 1.2, Basic Site Information: Please change the second sentence as follows: "It is designated as a class 2 site. A classification of 2 means the site poses a significant threat to public health or the environment, and action is required."

Section 1.2.1, Site Location and Description: In the third paragraph, the following modifications will clarify the information for residents unfamiliar with the hazardous waste program:

"In response to its interpretation of the requirements of the federal law called the **Resource Conservation and Recovery Act** (RCRA), Delphi commissioned a hydrogeological investigation in 1981 which consisted of installing 13 **groundwater monitoring wells...**"

Please revise the fourth paragraph to remove the discussion of the site being listed as a P-site. P- sites are not included in the registry. All that is needed is to state that DEC added the site to its list of inactive hazardous waste disposal sites in 1987. The current classification of the site was previously discussed.

In the fourth and fifth paragraph, "the presence of contamination by solvents" should be removed. A simpler and more accurate way to mention the contamination is to say "groundwater is contaminated with solvents, metals and petroleum."

The last two paragraphs discuss investigations since 1988, but do not indicate what those investigations revealed. The wording should indicate that the investigations showed that contamination has moved off-site. The depth of the contamination and the types of chemicals that have been found (for example, polychlorinated biphenyls (PCBs), trichloroethene (TCE) and its breakdown products, etc.) should be included. In the Region 8 citizen participation plan template, this type of information can be included in the "Background Information" section.

Section 1.3.1, section 1.3.2: Please remove these sections. The topics covered in the first part of section 1.3.1 can more easily be addressed by including DEC's fact sheets about the stages in the investigation and cleanup process as an appendix to the citizen participation plan. The second part of the section does not adequately describe upcoming remedial investigation activities. Section 1.3.2 first describes very general RI/FS goals, but then describes "IRM" objectives that a) seem misplaced because no IRM has been discussed at that point in the citizen participation plan, and b) do not appear to be the elements of an IRM, but are part of the RI/FS.

Section 1.4 Identification of Affected And/Or Interested Public: This section contains many errors in addresses and contact information. Additionally, a list of adjacent property owners and interested citizens is missing from the plan. DEC will provide you with an updated list of

contacts for the Delphi site, to which you can add additional contacts if desired.

Section 1.5, Identification of Department Contacts: An accurate list of State contacts is attached.

Section 1.6, Identification of Document Repository: For the convenience of the general public, the document repository should be located as close as possible to the neighborhood surrounding the hazardous waste site. Instead of the main branch of the Rochester Public Library, one or more of the following locations would be more accessible:

Maplewood Branch, Rochester Public Library
1111 Dewey Ave.
Rochester 14613
254-7048

Rochester NET Area A Office
1494 Dewey Ave.
428-7610

Lyell Branch, Rochester Public Library
956 Lyell Ave.
254-0790

Additionally, the DEC repository information needs to be corrected, and a list of documents available at the document repositories needs to be included in the citizen participation plan (see template).

Sections 1.7 and 1.8: Section 1.7 should be removed and replaced with the citizen participation section of the attached citizen participation plan template. The Region 8 Citizen's Glossary of Environmental Terms and List of Environmental Acronyms can replace section 1.8.

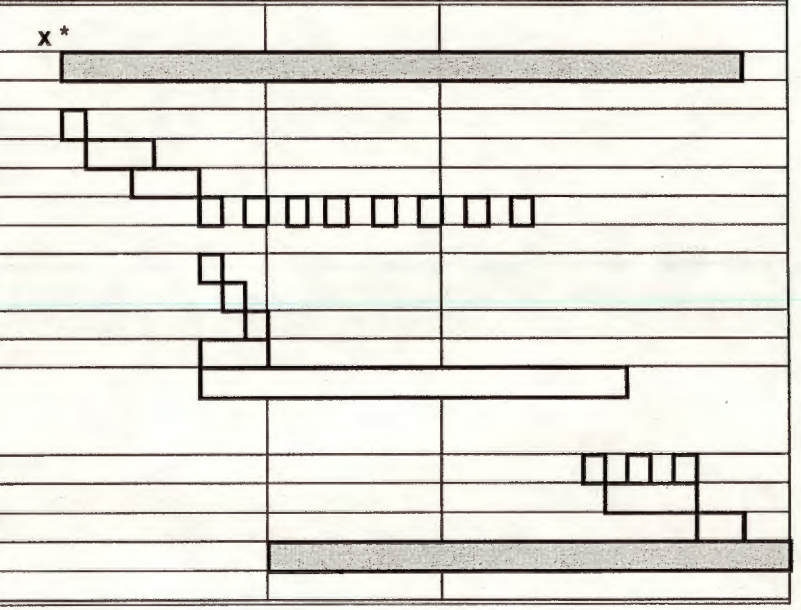
Delphi Response:

A copy of the revised CPP is attached for the review and approval of the Department. The draft CPP has been amended to adhere to the format presented in NYSDEC's June 1998 Citizen Participation Guidebook. Delphi understands that NYSDEC is to provide fact sheets for the Delphi site, which replaces the information provided in Section 1.3.1, for inclusion in the CPP. The changes suggested by the Department have been incorporated in the revised CPP, with the one exception noted in the following paragraph.

Delphi acknowledges that groundwater contamination was detected in monitoring wells near the Delphi property line along Driving Park Avenue in the shallow and intermediate bedrock zones. A discussion of the presence of contamination at the Delphi site boundary (contamination detected in wells along Driving Park Avenue), the nature and extent of that contamination, and the potential for off-site contamination, has been included under "Site Background" (Section 2) of the revised CPP.

TABLE I
DELPHI AUTOMOTIVE SYSTEMS LEXINGTON AVENUE FACILITY
RI/FS PROJECT SCHEDULE

	2000	2001	DATES OF COMPLETION TO BE DETERMINED
EFFECTIVE DATE OF RI/FS CONSENT ORDER	x *		
REMEDIAL INVESTIGATION			
PLANNED INVESTIGATIONS AT OUTDOOR LOCATIONS			
MOBILIZATION			
OFF-SITE WELL INSTALLATIONS			
ON-SITE TEST BORINGS AND WELLS AT OUTDOOR LOCATIONS			
QUARTERLY GROUNDWATER AND LNAPL MONITORING EVENTS (for 2 years)			
PLANNED INVESTIGATIONS AT INDOOR LOCATIONS **			
SOIL-VAPOR SURVEYS IN FORMER STODDARD FLOW-TEST AND FORMER PRODUCT-ENGINEERING AREAS			
DEGREASER STUDY AREA 4			
MACHINING AREA IN PLANT 1 NEAR PIT #20			
OTHER INDOOR LOCATIONS: PLANT 1 DEGREASER AREAS, PLATING AREAS, MACHINING AREAS, SEWERS, ETC.			
ANNUALGROUNDWATER AND LNAPL MONITORING EVENTS			
RISK ASSESSMENT **			
FINAL RI REPORT **			
FEASIBILITY STUDY			



Note:

1. * The effective date of the consent order has yet to be determined. The RI wll begin within 30 days of the effective date of the consent order.
2. ** Completion of these work items may extend beyond the time period shown because of the inaccessibility of some of the proposed exploration and sampling locations in areas of active manufacturing operations.
3. Please refer to Section 1.2 of the Work Plan text for additional information on the project schedule.

TABLE III

SUMMARY OF SUPPLEMENTAL INVESTIGATIONS

Areas Requiring Additional Investigation	Supplemental Investigations	Sampling Program and Analytical Parameters
General Site Conditions		
Off-site Areas North of Driving Park Avenue	Installation of two two-well clusters (shallow-bedrock well, SR, and intermediate-bedrock, R, well at each), and monitoring of appropriate SR/R well pair at Photec site.	Refer to Table IV for details on the groundwater-quality monitoring component of the RI program.
West end of North Parking Lot at Mt. Read	One SR+R well cluster	
East Parking Lot area and off-site areas to the east and northeast	1 new two-well cluster (SR + R), 3 new intermediate (R) wells.	
North of Plant 1	1 new well cluster north of Plant 1 - overburden (OW), SR, and R.	
Deep-Bedrock Groundwater	2 new on-site deep bedrock (DR) wells.	
Supplemental LNAPL Characterization	Identification of PCB congeners in LNAPL at all wells in East Parking Lot and Building 22 areas, characterization of hydrocarbon fraction.	
Periodic sitewide groundwater and LNAPL monitoring	**A)** Quarterly site-wide and off-site groundwater- and LNAPL-level measurement events for two years, annual events thereafter. **B)** Refer to Table IV for specific schedule for sampling and analysis of GW and LNAPL from each existing well and each newly-installed well.	
Natural attenuation potential	Chemical analysis of natural-attenuation indicator parameters in groundwater across site and at offsite locations.	Annual sampling of approximately 12 wells for alkalinity, pH, sulfate, sulfide, nitrate, nitrite, methane, chloride, TKN, dissolved oxygen, and other appropriate parameters.

TABLE III

page 2

Areas Requiring Additional Investigation	Supplemental Investigations	Sampling Program and Analytical Parameters
A. Plant Process Areas		
Degreaser Study Area 1	1 soil boring, 1 new SR well or OW/SR well pair.	One or two soil samples from each boring will be selected on the basis of field observations for analysis of the following parameters: VOCs, with SVOCs, PCBs, and TPH for samples which appear to be oily. Add PPL metals and cyanide analysis for soil boring in Study Area 2, for soil boring at east side or Area 3, and for soil boring and well boring in Study Area 4. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods. Groundwater and LNAPL: refer to Table IV.
Degreaser Study Area 2	1 soil boring, 1 new SR well or OW/SR well pair.	
Degreaser Study Area 3	4 soil borings, 2 new SR wells or OW/SR pairs.	
Degreaser Study Area 4	1 soil boring, OW/SR well pair.	
Former Degreaser 36 locations	Soil-vapor testing, with follow-up soil borings if warranted.	Soil vapor - GC Screening of VOCs Soils analysis parameters, if needed: VOCs, with SVOCs, PCBs, and TPH for samples which appear to be oily.
Former Plating Areas	Seven soil borings in former plating areas at accessible former locations of sumps and wastewater crocks, groundwater sampling at downgradient wells. Metals and cyanide analysis also to be performed at four Degreaser Study Area 2, 3, and 4 borings/wells, as noted above.	Soil: one or two samples per boring for analysis of PPL Metals and cyanide. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods. Groundwater: refer to Table IV.
Machining Areas & Oil Pits	Plant 1 - 1 intermediate-bedrock well adjacent to Pit 20 (see also investigations planned for Degreaser Study Areas 1, 2, and 3) Plant 2 – Three soil borings completed as shallow-bedrock wells, with OW wells if warranted.	Soil: one or two samples per boring for analysis of SVOCs, PCBs, and TPH for samples which appear to be oily. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods. Groundwater and LNAPL: refer to Table IV.
Former Tubing Mills Area	Evaluate Hg analysis results for groundwater at adjacent and downgradient wells, develop proposal for focussed soil investigation if groundwater results indicate past release.	Refer to Table IV for description of groundwater sampling for Hg at nearby and downgradient wells.
Former Stoddard Flow Test Areas – Plant 1 west & Plant 2 west	Soil-vapor sampling near former sumps, with follow-up soil borings and wells if a release is indicated	Soil vapor - GC Screening of VOCs
Former Product Engineering Areas	Soil-vapor survey inside Plant 1, with follow-up soil borings and wells if a release is indicated. Monitor groundwater quality and LNAPL outside Buildings 3 and 4.	Soil vapor - GC Screening of VOCs Groundwater and LNAPL: refer to Table IV

TABLE III

page 3

Areas Requiring Additional Investigation	Supplemental Investigations	Sampling Program and Analytical Parameters
B. Other Plant Features		
Stoddard Tank Farm Area	Soil sampling in containment basin during future tank removal.	Soil: one or two samples per boring for analysis of VOCs, SVOCs, PCBs, and TPH, with every fourth sample by ASP protocols with Category B Deliverables.
Former UST Areas:		
Area B	1 soil boring, possibly convert to water-table monitoring well.	Soil: one or two samples per boring for analysis of VOCs and TPH, with SVOCs and PCBs added for oily samples. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods. Analysis parameters for groundwater or LNAPL from Hydropunch sampling: VOCs Groundwater and LNAPL from any new wells – Refer to Table IV.
Area C	Two soil borings, possibly convert to water-table monitoring wells.	
Area D	1 soil boring at former TCE UST (tank 30), hydropunch sampling (refer also to Section C on the following page for investigations at tanks 26 /26A).	
Area E	3 soil borings, plus new well cluster north of Plant 1 (see p.1).	
Area F	1 soil boring, possibly convert to water-table monitoring well.	
Plant 2 Elevator	1 soil boring, complete as shallow-bedrock well.	Soil: one or two samples for analysis of TPH, SVOCs and PCBs. Groundwater or LNAPL – Refer to Table IV.
Scrap Building (Building 11)	3 soil borings with at least one overburden well in the location at the northeast corner of the building; hydropunch groundwater samples at other two locations, followed by installation of a well at either or both locations if LNAPL is indicated at either or both.	Soil: one or two samples per boring for analysis of TPH, with SVOCs and PCBs added for oily samples. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods. Analysis parameters for groundwater from Hydropunch sampling: TPH and PPL metals. Groundwater and LNAPL from new wells – Refer to Table IV.
Sewer Lines	A) Sampling of wastewater in main sanitary and storm sewers at approximately 10 locations beneath Plants 1 and 2. B) Test pit at PZ-115 to evaluate groundwater conditions in sanitary sewer bedding.	A) VOCs and PCBs in wastewater B) VOCs and PCBs in groundwater and, if present, LNAPL.
Basement Sumps	Assess potential GW infiltration, sample GW and/or LNAPL, collect wipe samples from walls if oil infiltration is noted.	Analysis parameters: GW - VOCs, PPL metals. LNAPL – PCBs, VOCs, physical parameters, fingerprint. Wipes - PCBs.

TABLE III

page 4

Areas Requiring Additional Investigation	Supplemental Investigations	Sampling Program and Analytical Parameters
C. SWMUs / AOCs		
Oil House, Center Dock	4 soil borings each with hydropunch groundwater samples.	Analysis parameters for soils (1 or 2 samples per boring) and groundwater from Hydropunch sampling: VOCs, PCBs, and PPL metals, with SVOCs and TPH added for oily samples. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods.
Former tanks 26 and 26A	1 soil boring.	One or two soil samples for analysis of TPH and VOCs, with SVOCs and PCBs added for oily samples.
Former Incinerator and Waste Oil Storage Area behind Plant 2	3 soil borings one to be possibly completed as an overburden or shallow-bedrock well.	Soil: one or two samples per boring for analysis of VOCs and TPH, with SVOCs and PCBs added for oily samples. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods.
48-inch storm sewer	5 soil borings with hydropunch groundwater samples.	Analysis parameters for soils (1 or 2 samples per boring): VOCs, PCBs, and PPL metals, with SVOCs and TPH added for oily samples. On every fourth sample add ASP protocols and Category B Deliverables and substitute ASP organic 95-x series analysis methods for standard SW-846 methods. Analysis parameters for groundwater from Hydropunch sampling: VOCs, PCBs, and PPL metals
Non-cyanide drum wash station	1 soil boring with hydropunch groundwater samples adjacent to former plating area.	One or two soil samples and one groundwater sample for analysis of VOCs, "PPL metals" and cyanide with TPH, SVOCs and PCBs added for oily samples.
Easement A Disposal Area	2 or 3 soil borings in addition to the 2 to be installed at north side of Scrap Building as described above, with at least one of the 2 or 3 borings completed as a water-table monitoring well.	Soil: two or more samples per boring for analysis of VOCs, SVOCs, PCBs, PPL metals, cyanide and TPH, with SVOCs and PCBs added for oily samples; all soil samples by ASP protocols with Category B Deliverables. Groundwater – Refer to Table IV.

NOTES:

1. Refer to attached Summary of Analytical Methods.

Summary of Analytical Methods

Parameter	Analysis Method		Source
	Groundwater	Soils	
Volatile Organic Compounds	8260B	8260B	SW-846
	95-1	95-1	NYSDOH ASP
Semi-Volatile Organics	8270C	8270C	SW-846
	95-2	95-2	NYSDOH ASP
PCBs	8082	8082	SW-846
	95-3	95-3	NYSDOH ASP
Mineral Spirits	8015B	8015B	SW-846
Petroleum Finger Printing (LNAPL)	8270C	8270C	SW-846
Total Petroleum Hydrocarbons	8015B(mod)DRO	8015B(mod)DRO	SW-846
Alkalinity	2320B	2320B	Standard Methods
Nitrogen, Ammonia	350.2	350.2	EPA
Nitrate	353.2	353.2	EPA
TKN	351.3	351.3	EPA
Sulfide	9030B/335.2	9030B/335.2	SW-846/EPA
Sulfate	9038	9038	SW-846
Chloride	325.3	325.3	EPA
Phosphorus	4500-P E/4500-P B.5	4500-P E/4500-P B.5	Standard Methods
TOC	9060	9060	SW-846
BOD	5210B	5210B	Standard Methods
COD	8000	8000	HACH
Density/Specific Gravity	In House	In House	In House
Viscosity	D 445	D 445	ASTM
Flash Point	1010	1010	SW-846
Cyanide	9010B	9010B	SW-846
Metals:			
Antimony	6010B, 7041	6010B	SW-846
Arsenic	7060A	7060A	SW-846
Barium	6010B, 7081	6010B	SW-846
Beryllium	6010B, 7091	6010B	SW-846
Cadmium	7131A	6010B	SW-846
Chromium	7191	6010B	SW-846
Hexavalent Chromium	7196A	7196A/3060A	SW-846
Copper	6010B	6010B	SW-846
Lead	7421	6010B	SW-846
Mercury	7470A	7471A	SW-846
Nickel	6010B	6010B	SW-846
Selenium	6010B, 7740	6010B	SW-846
Silver	6010B, 7761	6010B	SW-846
Tin	7870	7870	SW-846
Zinc	6010B	6010B	SW-846
Field Parameters			
pH	Field Meter	---	---
Conductivity	Field Meter	---	---
Eh	Field Meter	---	---
DO	Field Meter	---	---
CO2	Hach Kit		
Temperature	Field Meter	---	---
Turbidity	Field Meter	---	---

Notes:

1. Where two methods are listed, the method after the backslash is the sample preparation method.
2. Method 8015B(mod)DRO will provide a measure of the total petroleum hydrocarbons present in a sample and a qualitative petroleum fingerprint scan. DRO = diesel-range organics.

TABLE IV
PROPOSED GROUNDWATER QUALITY MONITORING PROGRAM

WELLS TO BE SAMPLED	ANALYSIS METHODS AND PARAMETERS FOR FIRST SAMPLING EVENT	SAMPLING EVENTS OVER NEXT TWO YEARS	SUBSEQUENT ANNUAL EVENTS
Groundwater			
All New Wells (see note 3)	**ASP Methods** ASP95-1 (VOCs), ASP95-2 (SVOCs), ASP95-3 (PCBs); Priority Pollutant List (PPL) Metals (see note 1), tin and cyanide, with ASP-level QA/QC and Category B report deliverables. Add analysis of sulfate and chloride for new deep bedrock wells.	Quarterly sampling for off-site wells, semi-annual sampling for on-site wells **SW-846 Methods** TCL VOCs by method 8260 and PPL metals at all wells in group, and with 8270 (TCL SVOCs) and/or 8082 (PCBs) analysis added at wells where SVOC or PCB contaminants were detected in initial sampling event.	All new wells to be sampled annually after first two years **SW-846 Methods** TCL VOCs by method 8260 and "Site Metals" (see note 2), plus other individual metal, cyanide, and organic COCs identified at the site during the previous two years of sampling.
17 Existing On-Site Wells (SR-3,R-3,SR-105, R-105R,DR-105,SR-8,R-108,DR-108,SR-9,R-109,DR-109,SR-11,R-11,DR-11,SR-131,R-131,R-239	**ASP Methods** ASP95-1 (VOCs), ASP95-2 (SVOCs), ASP95-3 (PCBs); Priority Pollutant List (PPL) Metals (see note 1), tin and cyanide, with ASP-level QA/QC and Category B report deliverables. Add analysis of sulfate and chloride for deep bedrock wells.	Annually **SW-846 Methods** TCL VOCs by method 8260 and PPL metals at all wells in group, and with 8270 (TCL SVOCs) and/or 8082 (PCBs) analysis added at wells where SVOC or PCB contaminants were detected in initial sampling event.	Annually **SW-846 Methods** TCL VOCs by method 8260 and "Site Metals", plus other individual metal, cyanide, and organic COCs identified at the site during the previous two years of sampling.
All Remaining Wells (see note 4).	**SW-846 Methods** 8260 (TCL VOCs) and "Site Metals" (see note 2). Add analysis of remaining PPL metals and cyanide for SR-231 and Study Area 5 VM wells.	- - - -	- - - -
Selected subset of "All Remaining Wells" (see note 4)	- - - -	Annually **SW-846 Methods** TCL VOCs by method 8260 and "Site Metals".	Annually **SW-846 Methods** TCL VOCs by method 8260 and "Site Metals".

TABLE IV
PROPOSED GROUNDWATER QUALITY MONITORING PROGRAM

WELLS TO BE SAMPLED	ANALYSIS METHODS AND PARAMETERS FOR FIRST SAMPLING EVENT	SAMPLING EVENTS OVER NEXT TWO YEARS	SUBSEQUENT ANNUAL EVENTS
LNAPL			
All New on-site and off-site wells with LNAPL (see note 3)	**ASP Methods** ASP95-1 (VOCs), ASP95-2 (SVOCs), ASP95-3 (PCBs), with ASP-level QA/QC and Category B deliverables, GC fingerprinting, and physical parameters (flashpoint, specific gravity, and viscosity).	**SW-846 Methods** Annually 8260 (TCL VOCs), 8082 (PCBs), and physical parameters.	**SW-846 Methods** Annually 8260 (TCL VOCs), 8082 (PCBs), and physical parameters.
10 Existing On-Site LNAPL Wells: R-2, R-236, R-241, RW-2, SR-102, SR-216, PZ-129, PZ-136 (or PZ-137 or –138 if PZ-136 has insufficient LNAPL), PZ-139	**ASP Methods** ASP95-1 (VOCs), ASP95-2 (SVOCs), ASP95-3 (PCBs), with ASP-level QA/QC and Category B deliverables, GC fingerprinting, and physical parameters. Add method 680 analysis of PCB congeners in LNAPL at all wells in East Parking Lot and Building 22 areas.	**SW-846 Methods** Annually 8260 (TCL VOCs), 8082 (PCBs), and physical parameters.	**SW-846 Methods** Annually 8260 (TCL VOCs), 8082 (PCBs), and physical parameters.
All Remaining Wells with LNAPL (see note 5)	**SW-846 Methods** 8260 (TCL VOCs), 8270 (TCL SVOCs), 8082 (PCBs), GC fingerprinting, and physical parameters. Add method 680 analysis of PCB congeners in LNAPL at all wells in East Parking Lot and Building 22 areas	- - - -	- - - -
Selected subset of "All Remaining LNAPL Wells" (see note 5)	- - - -	**SW-846 Methods** Annually 8260 (TCL VOCs), 8082 (PCBs), and physical parameters.	**SW-846 Methods** Annually 8260 (TCL VOCs), 8082 (PCBs), and physical parameters.

TABLE IV
PROPOSED GROUNDWATER QUALITY MONITORING PROGRAM

NOTES:

1. PPL metals include silver (Ag), arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr), copper (Cu), mercury (Hg), nickel (Ni), lead (Pb), antimony (Sb), selenium (Se), thallium (Th), and zinc (Zn).

2. "Site Metals" include Cd, Cr, Cu, Pb, Hg, Ni, Sn (tin), and Zn.

3. New wells include:

OFF-SITE:
Two off-site well clusters north of Driving Park Ave.; one off-site well along the Lexington Ave. sewer east of the East Parking Lot; one off-site well approximately 200 ft. east of SR-/R-2 cluster north of Lexington Ave.; one off-site well located approximately 150 ft. northeast of R-241; plus any other (additional) wells installed during the course of the RI/FS.

ON-SITE:
One on-site cluster at the northwest corner of the facility along Mt. Read Blvd.; one on-site cluster immediately south of Plant 1 along Lexington Ave.; one cluster immediately north of Plant 1 and south of Bldg.7; one well at the former incinerator; one well in Study Area 1; one well in Study Area 2; two wells in Study Area 3; one well immediately south of Study Area 4; one well immediately north of the Former Tubing Mills Area/Pit no.44; one well located in between Pit nos. 35 and 40; one well located immediately north of Pit no.19; one well located near the elevator in the northwest corner of Plant 2; one shallow well in the area of Bldg.11; one shallow well in the Easement A area north of Bldg.16; plus any other (additional) wells installed during the course of the RI/FS.

4. "All remaining wells" for groundwater sampling include the following existing wells last determined to not contain LNAPL: PZ-111, PZ-112, PZ-113, PZ-115, PZ-116, PZ-118, PZ-119, PZ-120, PZ-122, PZ-125, PZ-126, PZ-127, PZ-128, PZ-133, PZ-134, PZ-135, PZ-140, PZ-141, PZ-143, PZ-144, OW-6, OW-7, OW-102, OW-105, RW-101, SR-2, SR-101, SR-103, SR-107, SR-110, SR-132, SR-231, SR-233, SR-234, SR-235, SR-245, R-101, R-102, R-103, R-106, R-107, R-110, R-132, R-234, R-237, R-240, R-242, DR-103, VM- 209, VM-210, VM-213, VM-215, VM-217, VM-219, VM-220, VM-221, VM-222, VM-224, VM-225, VM-226, VM-227, VM-228, and VM-229.

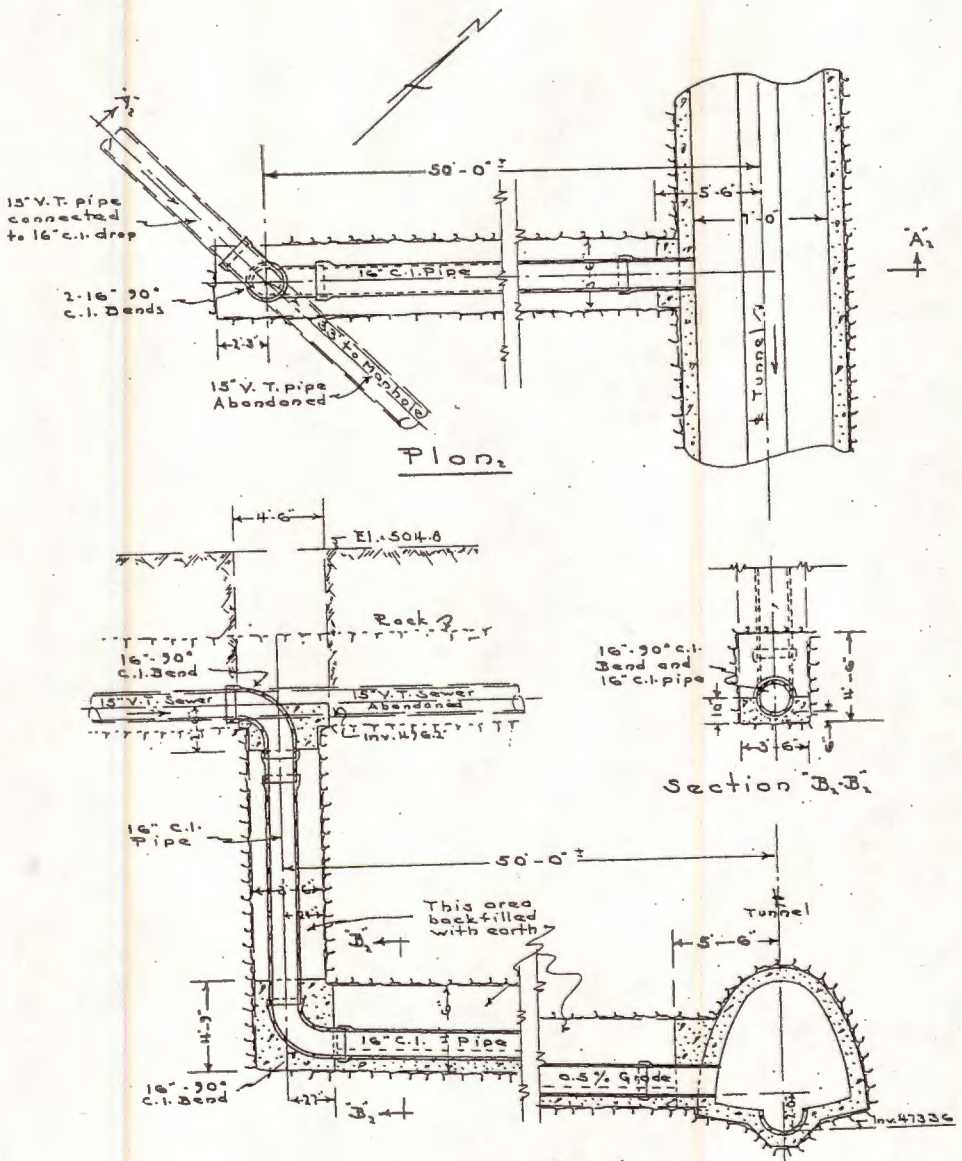
"Selected subset of 'All remaining wells'" for groundwater sampling includes: PZ-111, PZ-115, PZ-141, PZ-144, OW-7, OW-102, OW-105, SR-2, SR-103, SR-107, SR-110, SR-132, SR-231, SR-233, SR-234, SR-235, SR-245, R-102, R-103, R-107, R-110, R-132, R-234, R-237, R-240, R-242, DR-103, VM-210, VM-213, VM-219, VM-220, and VM-225.

5. "All remaining wells" for LNAPL sampling include the following existing wells: East Parking Lot wells R-235, SR-236, R-238, R-243, R-244; Tank Farm Area wells PZ-1, PZ-114, PZ-117, PZ-121, PZ-123, PZ-124, PZ-132, RW-3; Study Area 5 wells SR-230, VM-211, VM-212, VM-214, VM-218, VM-223; Study Area 4 well SR-208; Courtyard and Building 22 area wells PZ-130, PZ-142, RW-4, Well Z.

"Selected subset of 'All Remaining LNAPL Wells'" includes: East Parking Lot wells R-235, SR-236, R-238, R-243, R-244; Tank Farm Area wells, PZ-114, PZ-117, and PZ-132; Study Area 4 well SR-208; Study Area 5 wells SR-230, VM-211, VM-218; Courtyard and Bldg. 22 wells PZ-130, PZ-142, RW-4, and Well Z.

6. Any well classified above as an LNAPL well but which does not contain sufficient LNAPL volume for sampling and analysis will be sampled for groundwater if an uncontaminated (without residual LNAPL or product sheen) sample of water can be collected. In the initial sampling event the water samples will be analyzed for TCL VOCs, TCL SVOCs, PCBs, cyanide and PPL metals by ASP methods and the results will be reported with ASP-level QA/QC and Category B deliverables. Subsequent sampling and analysis of groundwater at wells in which LNAPL had been expected but not encountered will be by SW-846 methods for TCL VOCs, TCL SVOCs, PCBs and site metals.

If a well which has been classified above as a groundwater well contains sufficient LNAPL for sampling and analysis during the first sampling event, the LNAPL will be sampled for analysis by ASP methods for VOCs, SVOCs, PCBs, for GC fingerprinting, and analysis of physical parameters including flashpoint, specific gravity, and viscosity. ASP-level QA/QC and category B deliverables will be provided for the ASP analysis reports. Subsequent sampling and analysis of LNAPL at wells in which LNAPL had not been expected will be by SW-846 methods for TCL VOCs and PCBs.



General Motors Drift - Sta. 76+25

Subway

Scale: 1 inch = approx. 10 ft.

Appendix K
Summary of Review of Engineering Drawings for Former Plating Areas
Delphi Automotive Systems
Lexington Avenue Facility
Rochester, New York

Drawing Title	Date	Drawing No.
(unclear on copy)	unclear	FACL 124-0-1
Pit for Plating Carb & Fuel Pump Parts	1/12/1954	FACL 163-B-2
Sunken Area General Plating	1/16/1954	FACL 169-B
Pit Area for Bright Dip	1/26/1954	FACL 172-B
Drain Ditch for Dichromate	3/30/1954	FACL 217-C
Foundation for Lasalco Plater	unclear	FACL 278-D
Drains for Stevens Auto Plater	8/10/1955	FACL 333-C
Copper Plate Foundation for Fuel Pump Parts	1955	FACL 357-C
Pit for Copper Strip	12/28/1955	FACL 370-B
Drain for Con??? Fuel Pump Dichromate Tanks	unclear	FACL 409-D
Drains for 2-Jet Washers & Dichromater	5/28/1956	FACL 438-C
Pad for Plating Area Dept. 34-B	8/17/1962	FACL 819
Relocation Drainage to Process Waste Wagner Plater AM-14969	8/22/1962	FACL 823-B
Sunken Floor for Plating Area Dept. 34 B	8/27/1962	FACL 825
Dept. 23 B Dichromator & Tote Pan Washer	11/8/1962	FACL 849-B-2
Drain System for Quadra-Jet Dichromate	11/16/1964	FACL 1035-D
Monojet Dichromate System	4/12/1967	FACL 1246-C-1
AM-24720 Udylite Plater General Layout	6/12/1967	FACL 1262-D
Foundation & Drainage for Ionic Zinc Plater	8/8/1969	FACL 1389
Foundation & Drainage for Ionic EGR Plater	3/6/1972	FACL 1559 (1 of 3)
Foundation for Auto Dichromator AM-26936	5/11/1972	FACL-1584
Foundation for Lock Dichromator AM-26685	6/6/1972	FACL-1595 (1 of 2)
Piping of Brass Brightener Rinse Tank to Chrome Sump - Dept. 5D (Plant 1)	7/17/1972	FACL 1612-C
Drainage System for IFC Dichromate	8/13/1972	FACL 1786 & 1786-D
Foundation & Drainage for #3 Ionic Plater AM-27732	10/22/1973	FACL 1808 (1 of 6)
Foundation & Drainage for #4 Ionic Plater AM-27731	12/21/1973	FACL 1814-D (1 of 6)
Waste Treatment (2) Dept. 26 Interconnecting Pipe	2/5/1976	FACL 1816 (5 of 9)
IFC Air Horn & Float Bowl Dichromate System Tanks & Dryers	11/6/1973	FACL 1824
Installation of Quad Dichromate Lines AM-28005	6/16/1975	FACL 2014-D
Monorail Phosphate Line D126 - Steam, Water, Oil, Sump	7/21/1976	FACL 2107-D (3 of 4)
#1 Ionic Plater AM-25560 Foundation & Drainage	12/22/1976	FACL 2173-D (1 of 17)
Dept. 26 Heat Treat Line - Rinse Tank Drain & Piping	3/11/1977	FACL 2188-D (5 of 8)
Foundation & Drainage for Carden Programmed Hoist Zinc Plater AM-31934	2/18/1980	FACL 2488-D (2 of ?)
North Pit Dept. 26 - Zinc (Carden plater)	12/19/1979	FACL 2493-D
Foundation for Nickel Plate Filter, Treatment Equipment Plating Area	4/10/1972	FACL 2068-D (1 of 3)
Relocate "Bright Dip", D/5	7/12/1978	FACL 2336-D
Automatic Zinc Platers Water Service Chrome Water circulating System	5/30/1975	UTIL 702-48
Manual Plating, Heat Treat & Dichromate Areas (Plant Wide)	6/28/1972	UTIL 1212-7 (4 of 5)
Dept. 26 Pit - Nickel, CN, Neut. Treatment	2/19/1973	UTIL 1212-8 (9 of 9)