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September 3, 2004

Mr. Jim Hosch
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
Northern Region, Superior Office
1401 Tower Avenue, Superior, WI 54880

Subjects: **Annual Status Report and Piping Removal Notification and Work Plan**
Former Amoco Terminal #406 located at 2904 Winter Street, Superior, WI 54880
Delta Project No. AMG006N
WDNR BRRTS No. 02-16-000331

Dear Mr. Hosch,

Delta Environmental Consultants, Inc. (Delta), on behalf of BP Products North America, Inc. (BP), submits the enclosed reports:

Annual Status Report - January 2004 through June 2004, dated August 31, 2004
Limited Removal of Underground Product Piping, dated September 2, 2004

Please note that we are planning a limit piping removal at the subject property. Please consider this letter as notification of this work.

The enclosed *Annual Status Report* will also service as a guide during our site informational meeting scheduled on Thursday, September 9, 2004 at 9:00 am at the referenced subject property. We look forward to meeting with you.

Please contact me at (262) 827-3982 should you have any questions, comments, or require additional information regarding this matter or project.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Tim Mueller, P.G., CHMM
Hydrogeologist

c: Ray Stoelting, Atlantic Richfield Company (A bp affiliated company)

Enclosures: *Annual Status Report January 2004 to June 2004* dated September 2, 2004
Limited Removal of Underground Product Piping dated September 2, 2004

A member of:

Inogen
Environmental Alliance

Red - Increasing Free Product
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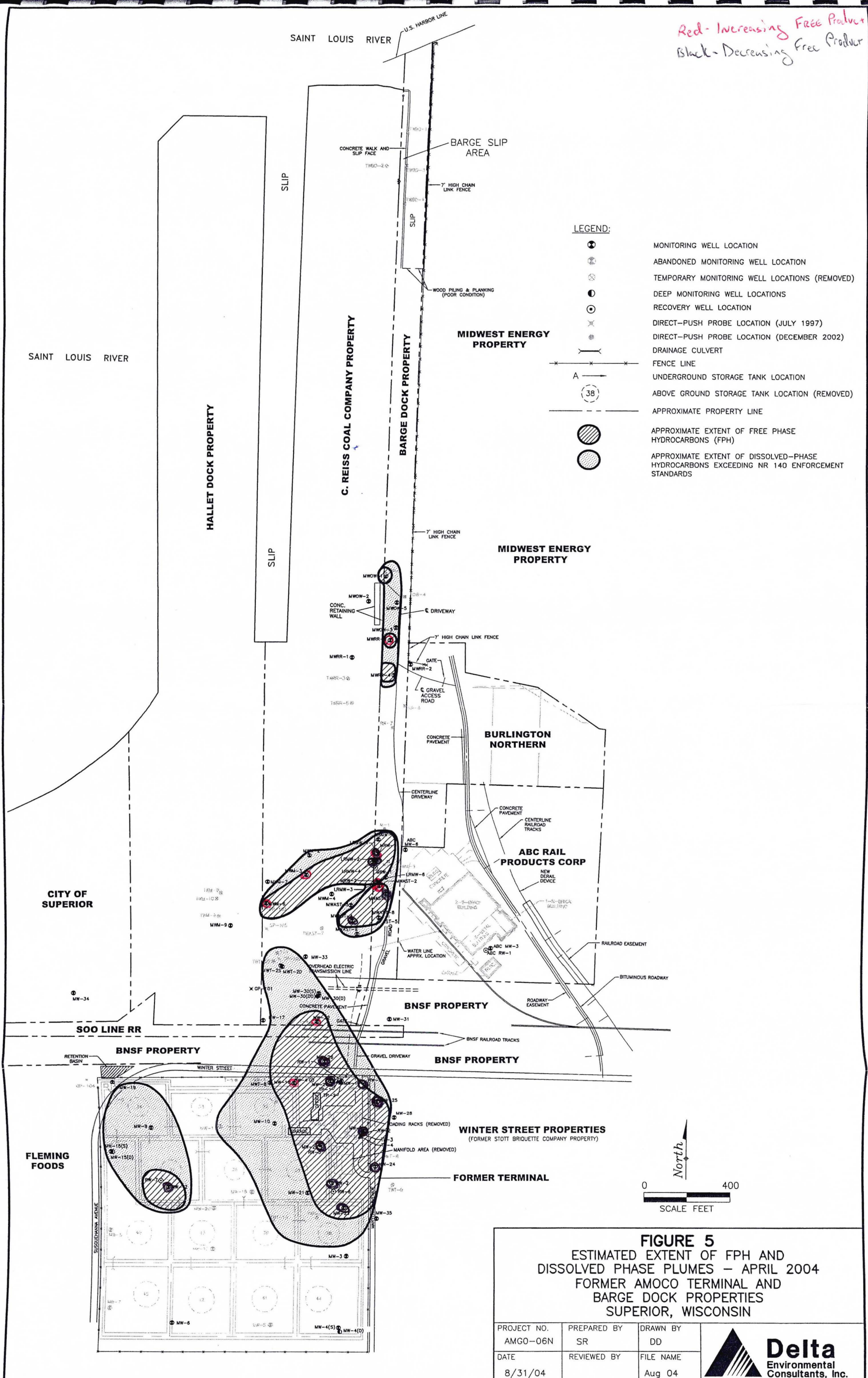


FIGURE 5
 ESTIMATED EXTENT OF FPH AND DISSOLVED PHASE PLUMES - APRIL 2004
 FORMER AMOCO TERMINAL AND BARGE DOCK PROPERTIES
 SUPERIOR, WISCONSIN

PROJECT NO. AMG0-06N	PREPARED BY SR	DRAWN BY DD
DATE 8/31/04	REVIEWED BY	FILE NAME Aug 04



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Work Plan

for

Limited Removal of Underground Product Piping

at

Former Amoco Terminal Property
(Lake City Towing Property)
2904 Winter Street
Superior, Wisconsin 54880

Prepared by:

Delta Environmental Consultants, Inc.
17500 West Liberty Lane, Suite A
New Berlin, Wisconsin 53146

Delta Project No.: AMG006N

Prepared for:

Atlantic Richfield
(a BP-affiliated company)
P.O. Box 642
Chanhassen, Minnesota 55317

September 2, 2004

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1 Introduction

This work plan has been developed by Delta Environmental Consultants (Delta), on behalf of BP Products North America (BP), to provide a general scope of work for the removal of inactive underground product distribution piping located at former Amoco Terminal property.

The property is located at 2904 Winter Street on the northeast corner of Winter Street and Maryland Avenue and is currently owned and operated by Lake City Towing (LCT). Site location and site maps are included as Figures 1 and 2, respectively.

This plan only involves the removal of a section of piping located in a grassy area located in the north portion of the LCT property referred to herein as the "Work Area" and shown on Figures 2 and 3. Known piping located in the Work Area are summarized in Table 1.

The piping to be excavated and removed includes at least six 20-foot lengths of piping that were part of the formerly active distribution piping connected to the former petroleum bulk tanks located on-site and the former piping formerly located on the Barge Dock property located adjacent to the north across Winter Street (Figure 1).

This work plan provides BP's current understanding of piping locations in the vicinity of the Work Area (Figures 2 and 3) and provides the general processes planned to be implemented for exposing, draining, excavating, removing, and disposing of the piping and managing piping contents and concrete/debris encountered during the removal.

It is BP's belief that the processes and criteria described in this work plan will produce an appropriate degree of confidence that the piping located in the Work Area have been removed from the subsurface.

2 Objectives

The primary objectives of this piping removal include:

- Assessing the presence or absence of petroleum-related liquids in the piping located in the Work Area.
- Providing unimpeded subsurface access for potential remedial activities in the vicinity of the Work Area.
- Eliminating potential contaminant sources to soil and ground water through future releases from the piping.
- Manage impacted soil around the piping consistent with regulatory limits established by the Wisconsin Department of Natural Resources (WDNR).

Additional objectives of this work plan include:

- Outlining the major components of the removal of the inactive piping located in the vicinity of the Work Area located on the Terminal property;
- Establishing performance criteria for each of the major components of piping removal that will establish general guidelines for the contractor performing the work, but will not specify methods to perform the work;
- Complying with applicable requirements of Wisconsin Administrative Code, Chapter NR 700 that address investigation, remediation, and closure of environmental sites;
- Ensuring that piping removal is protective of worker safety, the public, and the environment by developing safe performance criteria through a Site Health and Safety Plan (SHSP);
- Defining the information to be collected during piping removal and procedures for reporting the information.

As noted in the work plan objectives, this work plan provides performance criteria for piping removal activities. As it affects the piping removal operations, procedures for concrete removal are included in this work plan. Detailed procedures are not included, as different contractors qualified to perform the work may have different approaches for removal activities. After contractor procurement is completed, detailed procedures will be developed by the contractor to meet the performance criteria established in this work plan.

3 Background

This work is planned in response to encountering additional underground product piping (8 to 10 inch diameter), other unidentified conduits and fill debris during the field drilling of several recovery wells during the week of August 16, 2004. These newly install recovery wells are associated with the new FPH recovery system planned to be installed in fall 2004. Photographs 1 and 2 show the underground piping uncovered during the week of August 16 and anticipated to be present in the Work Area.

The Work Area was selected on the basis that this area is part of the planned trench connecting the treatment system discharge line to the on-site sanitary sewer holding tank and discharge line.

Historical piping and facility maps, piping schematics, Sanborn® maps, and aerial photography for the Terminal property were reviewed to gain a general understanding of piping locations, facility structures, and storage or tank locations.

Known piping and utility conduit beneath the Work Area consists of approximately seven to ten 20-foot lengths of 8-inch to 10-inch petroleum product piping, one underground electrical power line, and one soil vapor extraction (SVE) line.

The product piping were part of the formerly active distribution piping connected to the former petroleum bulk tanks located on-site and the former piping formerly located on the Barge Dock property located adjacent to the north across Winter Street (Figure 1).

This work plan addresses the identification, exposure and removal of inactive petroleum piping. Underground piping and utility conduits/lines known to be present in and near the Work Area are shown on Figure 2.

4 Piping Removal Performance Criteria

Performance criteria for piping removal activities and the basis within which the work will be performed are included below. Piping removal components include site preparation, exposing piping, soil management, piping draining, recovered material management, piping handling, piping disposal/recycling, and verification of piping removal.

Performance criteria for each of these components are discussed in the following sections.

4.1 Site Preparation

Site preparation activities will be conducted prior to initiation of piping removal. Site preparation will include establishing an impacted soil storage area and relocation of active utilities, if necessary. The location and size of the soil storage area will be coordinated with the piping removal contractor to efficiently perform the work. In addition, active piping and utilities will be moved or protected prior to start of piping removal activities.

An underground electrical line and soil venting line both associated with the current SVE system are present near or along the east side of the Work Area (figures 1 and 2). Both utilities must be de-energized and deactivated prior to start of any subsurface work.

4.1.1 Soil Storage Area

The location of the impacted soil storage area will be approximate 20 to 50 feet north of the Work Area and is shown in Figures 2 and 3. Impacted soil will be characterized as soil exhibiting volatile organic compound (VOC) field readings of 200 instrument units (IUs) or greater using a calibrated photoionization (PID) equipped with a 10.6 eV lamp.

The impacted soil storage area will be approximately 20 feet by 50 feet, with an approximate capacity for 150 cubic yards. This area will serve as a centralized storage location where petroleum-impacted soils can be temporarily stockpiled, tested (if required), and staged prior to being treated at the site, transported for off-site disposal or returned to the excavation.

It is not possible to predict the presence or quantity of impacted soil that will be excavated during site preparation, piping exposure, and piping removal activities, but this area will be large enough to provide flexibility for the contractor to handle these uncertainties.

If present, soil containing (saturated with) free-phase hydrocarbons (FPH) will not be excavated, unless otherwise instructed by Delta. If present, FPH will be recovered from

the excavation via a vacuum truck on stand-by at the site or contained on-site for future off-site disposal.

The impacted soil storage area has been designed with a perimeter berm to serve as a surface-water diversion, preventing overland flow into and runoff from the impacted material. Accumulated water will be collected for transport and off-site treatment.

4.1.2 Piping Removal Sequence

A systematic approach for piping removal will be used to document completed portions of the removal process, allowing additional characterization sampling after piping removal, if required, and commencement of additional remediation.

Unless site conditions present a more safer location, the removal will occur from the west side of the excavation to allow access for vehicles used to transport piping, concrete, cables and soil.

Active utilities and remediation piping (such as the interim product recovery and soil vapor extraction systems between the office building and Winter Street) will be protected, relocated, or abandoned. Relocation or protection will be performed and sequenced for continuous operation of the remediation system(s) and active utilities. Table 2 provides additional information of the active utilities and FPH remediation systems.

4.2 Exposing Piping

Prior to exposing the piping and any excavation activity, underground utilities will be identified prior to the start of any piping removal (excavation) work. Utilities include process, sewer, water, and electrical piping shown on Figure 2. Underground utility locating services and historical piping maps will be relied upon to identify underground utilities in the Work Area.

Overlying grass, soil, and fill will be excavated to expose at least the top of the piping. The depth to the top of the piping is estimated between two and three feet below the ground surface (bgs).

After the piping is exposed, it will be assessed and then drained using a safe non-explosive or heat generating method. Following draining and collection of flowable liquids using a vacuum recovery truck, the piping will be cut using a cold cutting technique appropriate for cutting piping that may be under pressure or contain flammable liquids. The contractor will provide Delta with a current procedure for safely cutting piping containing flammable petroleum products and contingency plans in the event that soil or petroleum ignites.

Excavation will continue until all piping has been removed within the designated area (Work Area). Piping will be marked within and at the Work Area boundaries so they may be located during future removal activities.

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Excavation to remove piping will continue to a depth necessary for piping removal but not to exceed four feet below ground surface or until ground water is encountered, whichever is less.

However, where further excavation below four feet or the ground-water table may cause undesirable spread of impacted materials or unacceptable worker safety conditions, removal of piping or impacted soil below this depth will be reviewed and authorized by Delta on a case-by-case basis. For piping located deeper than four feet below the ground surface, confined-space entry procedures developed by the contractor must be followed should entry into the excavation be required.

Criteria for consideration that would not allow excavation and removal of piping at any depth can be segregated into unacceptable environmental conditions and unacceptable safety conditions. If unacceptable safety conditions exist for workers and the piping contains liquids that can be drained without removing the piping, thereby eliminating a source, the liquids will be drained prior to removing the piping.

Unacceptable environmental conditions would include:

- Noting that this area has been used for heavy industry since the late 1800s, there is a chance that unknown chemicals or residues may be encountered that require special handling beyond the scope of this work plan. Examples of these instances may include waste products from manufactured-gas plants, briquette plants, coal processing, railroads, or other facilities that may have operated in this area over the last century, and
- Buried drums, which may still contain toxic or hazardous substances which if released into the environment could cause harm to the environment.

Unacceptable safety conditions would include:

- Workers need to enter the excavation to remove the piping and proper shoring or sloping of the excavation can not be achieved in accordance with requirements established by the Occupational Safety and Health Administration (OSHA), and
- Excavation into impacted soil causes air emissions at or above the Permissible Exposure Limit (PEL) for unprotected personnel or atmospheres at or above the Immediately Dangerous to Life and Health (IDLH) Limit established by the National Institute for Occupational Safety and Health (NIOSH) for personnel in Level B Personal Protective Equipment (PPE). Piping excavation will not proceed where air emissions would require Level B PPE.

4.3 Soil Management

Based on historical information, impacted soil may be encountered during excavation and piping removal. Three categories of soil will need to be managed:

- Soil where a calibrated PID registers less than 200 IUs will be considered unimpacted;
- Soil where a calibrated PID registers greater than 200 IUs will be considered impacted with residual hydrocarbon, and
- Soil containing process residuals or saturated with FPH.

4.3.1 Unimpacted Soil

Soil registering less than 200 IUs on a calibrated PID will be returned to the excavation following piping removal with no processing.

4.3.2 Soil Containing Residual Hydrocarbon

Soil considered impacted with residual hydrocarbon within the excavation (upper four feet) will be excavated and temporarily stockpiled near the excavation for ex-situ processing at a later time as described in Section 4.1.1.

4.3.3 Soil Saturated with FPH or Containing Process Residuals

Soil containing FPH will not be excavated, unless otherwise instructed by Delta. If present, FPH will be recovered from the excavation via a vacuum truck on stand-by at the site or contained on-site for future off-site disposal.

FPH-saturated soil will be identified as soil containing non-aqueous phase liquid (NAPL) which freely drains from the soil matrix. NAPL saturation will be confirmed using the Paint Filter Test (Method 9095, as described in Appendix A).

Soil saturated with FPH will be removed from the piping line area (trench) to reduce the potential for future exposure and eliminate potential sources. If excavated, soil saturated with FPH will either be stored and covered on-site in the Soil Storage Area prior to treatment or transported directly to the off-site thermal treatment facility, if pre-arranged prior to removal.

As an interim action to perform a source removal, as defined in Wisconsin Administrative Code NR 708, the FPH-saturated soil will be transported off-site for thermal treatment, thermally treated at the site using a portable "soil flaring" unit provided by the contractor, or disposed of at a licensed recycling and disposal facility (RDF), depending on the total volume of FPH-saturated soil excavated. The purpose of the thermal soil treatment,

whether on-site or off-site, is to destroy FPH in the soil. The thermal soil unit must be capable of achieving and holding a treatment temperature of 1200 °F. Soil handling is summarized in BP's Excavation Management Plan (Appendix B) for this project. Soil treated through the thermal soil unit will be used for final grading.

Soil encountered during piping removal that contains process residuals (non-soil solids) will require excavation and ex-situ processing. Ex-situ processing for these categories of soil is described in below sections. Process residuals will be identified by visual classification as non-soil solid material, such as coal granules, vermiculite, bricks and concrete.

It should be noted that the material management strategy and confirmation sampling requirements will be further developed in the Excavation Management Plan in the vicinity of the Work Area. As required in NR 708.11 (4) (c), the WDNR will be notified in advance of the proposed piping removal and limited interim actions to address soil impacts. Compliance with environmental standards developed for industrial sites (as cited in Wisconsin Administrative Code NR 746) will be demonstrated through collection and analysis of soil samples at a future date. Specific requirements of the Excavation Management Plan will be incorporated into this Work Plan in Appendix B.

4.4 Piping Draining

All product piping uncovered must first be inspected for liquid contents and then drained if liquids are present. Prior to draining piping containing liquids, an evaluation of historical maps was performed to identify potential contents of piping, as tabulated in Table 1. Evaluating the piping contents prior to removal will allow, to the extent possible, identification of health and safety issues, including use of the correct PPE and distinguishing between incompatible liquids. For safety, it will be assumed that all piping contain hydrocarbon products unless there is specific information to the contrary (such as, the piping is observed to be dry or its contents are listed on a historical map).

4.4.1 Spill Prevention Units

Following excavation of a corridor and exposing the piping, the topographically lowest accessible point on a piping run will be located and the area below the piping will be excavated to install a spill-prevention unit. A spill-prevention unit will consist of a containment device (such as, a trough) and a vacuum truck. The capacity of the spill prevention unit plus the vacuum truck will be checked prior to draining a piping to assure that this capacity exceeds the maximum volume of liquids being drained from the piping. For estimating purposes, note that each foot within the piping diameters listed below contain the following volume of liquid when the piping is completely full:

- 2-inch piping: 0.16 gallons/lineal foot
- 4-inch piping: 0.65 gallons/lineal foot
- 6-inch piping: 1.47 gallons/lineal foot
- 8-inch piping: 2.61 gallons/lineal foot
- 10-inch piping: 4.08 gallons/lineal foot
- 12-inch piping: 5.87 gallons/lineal foot

4.4.2 Piping Draining

The liquids in the piping will be drained in a manner deemed safe by the subcontractor. These methods may include using the cold cutting procedures cited earlier. The piping would be drilled followed by cutting a larger hole in the piping to allow the liquids to be vacuumed directly from the piping.

If the liquids in the piping are released into the excavation, the liquids will be removed by vacuum truck for proper off-site disposal and any impacted soil will be excavated and transported to the soil storage area for thermal treatment as described in Section 4.3. The piping may also be raised to allow contents to be more thoroughly drained. Care will be taken to prevent spills from occurring while cutting or draining the piping.

4.4.3 Spill Management

Measures will be taken to manage spills of liquids during piping removal activities. During all work activities, a spill-response kit will be available consisting of oil-absorbent pads, oil-resistant gloves, oil-absorbent booms, large garbage bags and/or drums for containment and shovels. If a leak is encountered in a piping, a vacuum truck will be immediately brought to the spill location. The spilled liquid will be recovered by the vacuum truck. Soil impacted by the spilled liquids will be excavated and managed in accordance with soil management criteria for FPH-saturated soil as discussed in Section 4.3.

4.5 Recovered Material Management

Recovered material from the piping will be segregated, to the extent possible, using process knowledge, historical maps, and visual observation of the liquids, into three categories:

- Hydrocarbons (refined products or intermediates)
- Water (including water impacted by hydrocarbons)
- Other chemicals and unknowns

This segregation will reduce the amount of treatment and management involved with the recovered material. Refined products or intermediates will be transported to the on-site oil-storage tank(s) provided by the contractor, or transported to an off-site storage facility.

At the end of the project, or as required by storage limitations, the collected petroleum products will be transported off-site for recycling or disposal. The removal contractor will visually segregate hydrocarbons from other liquids during piping evacuation and transport the segregated liquids to the on-site oil-storage tanks(s).

Sludge and product containing significant water will be transferred to designated containers or tanks at the site for processing and separation of the water. Product or intermediates will be stored in a separate tank, or tanks, for further processing, recycling or disposal. The removal contractor will maintain records of the quantity of liquid hydrocarbons transferred to the on-site oil-storage tank(s).

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Water mixed with hydrocarbons will be separated and stored in the designated tank supplied by the contractor. Hydrocarbon-impacted water will be transported off-site for proper disposal. The removal contractor will maintain records of the quantity of hydrocarbon-impacted water that transferred to the storage tank(s) and eventually removed to an off-site treatment facility.

Other chemicals or unknowns shall be defined as material other than hydrocarbons or hydrocarbon/water mixtures. It is unknown if any non-hydrocarbon chemicals were or are present at the site, but if so, they potentially pose corrosive, reactive, or health risks. A hazcat chemical identification kit will be used to identify the unknown recovered material. The hazcat chemical identification kit provides the reagents and materials necessary to perform chemical identification and categorization field tests. The test kit can identify or categorize over 1,000 hazardous and non-hazardous substances, including flammables, corrosives, caustics, poisons, metals, paints, plastics, pesticides, oxidizers, explosives, water-reactives and asbestos. Most single component unknowns can be identified in less than ten minutes. Unknown material will be identified to evaluate disposal options for these liquids in accordance with applicable regulations. By identifying the unknown materials, the removal contractor can categorize them such that incompatible materials are not mixed. The removal contractor will maintain an approved screening program for chemicals and unknowns and shall segregate incompatible chemicals. Reports of these unknown materials will be made to Delta to determine the most expedient disposition.

4.6 Piping Handling

Once the piping have been drained, they will be removed from the excavation. The piping will be cold cut into manageable lengths (less than 20 feet) to allow for appropriate loading and transport to the recycling/disposal facility on a flat-bed truck. Each section will be loaded directly from the trench to the flat-bed truck.

4.7 Piping Disposal/Recycling

Depending on the recycle value, the piping will be divided into categories based on the following material compositions:

- Cast iron
- Hard steel
- Stainless steel
- Concrete/Clay piping

If appropriate, metallic piping will be shipped off-site and processed as recyclable materials. Reuse of the piping will not be approved or permitted. Concrete and clay piping do not have recycle value and will remain at the Terminal property following completion of this project for future disposal. Plugged lines that would require an excessive amount of cleaning will be disposed of at Waste Management's Timberline Trail RDF in accordance with the Material Management Plan.

5 Concrete and Structure Removal Performance Criteria

As part of the remediation and overall reuse of the Terminal property, concrete foundations, revetments, pump stands, tank bases, and railroad tracks, may be removed if they impede or obstruct removal of the petroleum piping.

This work plan was not specifically developed to guide the removal of concrete unless it obstructs the removal of petroleum piping. Any concrete encountered and removed will remain at the Terminal property. Any ferrous metal (such as railroad tracks) incidentally removed during the piping excavation process will be recycled or disposed of with the recovered steel piping.

Concrete removal will benefit reuse by reducing interference with future development and eliminating potential sources from associated piping within the concrete (typically slab-on-grade concrete). Previous work at the Terminal property has identified several types of concrete structures, including structural foundations, slab-on-grade floors, curbing, pump stanchions, and railroad track stops.

Slab-on-grade concrete is defined as concrete, which is eight inches thick or less that was placed as pavement around process units (such as loading racks) or supported light structures. All slab-on-grade concrete encountered during piping removal, including associated drains, will be removed.

Structural foundations are defined as concrete that supported large structures, process equipment or tanks. Excavation will occur around the perimeter of these foundations to locate potential piping, which will be removed if located. Removal of structural foundations will be undertaken at Delta's direction. Structural foundations that are not removed will be mapped for future reference during redevelopment.

Structures that may require removal during the piping removal project will include steel tanks, concrete tanks, and sumps. Steel tanks, if encountered during piping removal, will be decommissioned in the following manner:

- Liquids, if present, will be pumped or vacuumed from the tank with the liquids being handled in accordance with the procedures for liquid management provided in Section 4.5 of this work plan;
- The tank will be rendered inert and cleaned by a qualified tank remover, as certified under Wisconsin Administrative Code Comm 5 administered by the Wisconsin Department of Commerce; and
- Render tank unusable, dismantle and remove from site to a qualified tank disposal facility.

6 Health, Safety, and Environment

Health, safety, and environment (HSE) issues were identified for the protection of on-site personnel, visitors, and the public from known or unforeseen health, safety, and environmental hazards. Specific criteria that will develop the health and safety procedures will be outlined in the Site Health and Safety Plan (SHSP), including procedures to be followed in the event that a fire occurs. For intrusive work a special project-specific binder ("Red Book") will be maintained at the site that contains and summarizes the following information:

- Project contact names with telephone numbers
- Maps
 - Hospital
 - Site (Roadmap)
 - Site (Detailed)
 - Landfill
- Excavation Management Plan (BP version)
- Pre-drilling/Subsurface Checklist (BP version)
- "What-if" Checklist (BP version)
- Intrusive Work Checklist (Delta version)
- Scope of Work
- "If Asked" Statement
- Right of Entry Documents and Permits
- Certification Copies
 - Bovis training
 - 8-hour OSHA HAZWOPER refresher
 - First Aid/CPR
- As-built Plans

The objective of this section is to provide the minimum requirements to protect worker safety, the public, and the environment during piping and concrete removal. These requirements include personal protective equipment (PPE), training, monitoring, and engineering controls to be implemented during removal activities.

6.1 Personal Protective Equipment

PPE will be used to protect personnel from exposure to site contaminants or physical hazards that may be encountered during the piping and concrete removal. Different PPE will be required for different components and different activities of removal. Level D protection will be required at all times on site, which includes:

- Hard hat
- Steel-toed boots
- Safety glasses with side shields
- Work clothes
- Work gloves
- Reflective safety vest
- Hearing protection (as appropriate)

Components of removal activities which involve the potential for contact with or exposure to piping contents or highly impacted soil will require additional protection. Modified Level D PPE, which provides a greater degree of skin protection, includes:

- Hard hat
- Disposable protective coveralls
- Disposal cotton or leather gloves (with inner/outer chemical resistant gloves)
- Chemical resistant steel-toed and steel-shanked boots
- Safety glasses with side shields
- Woven reflective safety vest
- Hearing protection (as appropriate)
- Full face shield (as appropriate)
- Welding leathers and appropriate eye protection and gloves when performing hot work

Additional protection may also be required primarily while handling piping contents and highly impacted soil based on ambient monitoring criteria. Level C PPE includes vapor protection and consists of Level D protection with the following additions:

- Half-face, air-purifying respirator (APR) or full-face APR respirator (depending on required protection factor) with organic vapor/acid gas high efficiency particulate air cartridges meeting NIOSH, Mine Safety and Health Administration specifications
- Disposable chemical protective coveralls
- Disposable chemical resistive outer gloves (such as, neoprene or nitrile)
- Disposable chemical resistive inner gloves (such as, nitrile)
- Chemical-resistant, steel-toed and steel-shanked boots

6.2 Training

All personnel performing field tasks for the piping, tank or concrete removal will have had the 40-hour HAZWOPER training and annual 8-hour refreshers thereafter as required by OSHA CFR 1910.120. In addition, each site worker will receive site orientation training and project-specific training, such as the Passport Safety Training developed specifically for BP facilities. Daily safety meetings will be conducted for all piping removal personnel. These meetings will identify task-specific safety practices for each of the day's planned activities. In addition, all personnel will receive task-specific training or instruction related to the piping removal.

6.3 Monitoring

Air monitoring will be performed on a daily basis. It is expected that the contractor will perform air monitoring continuously within the immediate work area whenever piping are being exposed or soil excavated. Monitoring should occur in the vicinity of the actual work location and along the perimeter of the property downwind of the work area. Air monitoring at the perimeter of the property will be conducted by Delta each hour by taking a background (upwind) readings for the parameters listed below followed immediately by taking readings at the property perimeter downwind of the current work area. Additional

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readings may be collected if there is a change in work or weather conditions; such as a change in wind direction or work conditions. Air monitoring will consist of the following direct readings:

- VOCs with a photoionization detector
- Lower Explosive Limit (LEL) with an explosimeter

Action levels and responses for each of these parameters will be described in the SHSP. This monitoring program will provide a real-time analysis on a daily basis to verify that work is being performed safely. If air monitoring indicates conditions that allow workers to remain in Level D PPE, no additional action will be taken. If air monitoring indicates conditions that require workers to upgrade to Level C PPE, work will be paused and the potential impact to the community evaluated.

Collection of industrial hygiene samples will be performed as directed by the Health, Safety and Environment Manager. Appropriate medical monitoring protocols may also be established based on monitoring results.

6.4 Engineering Controls

Engineering controls will be used to protect personnel at the site, the general public in off-site area, and to minimize impacts to the environment. Engineering controls include:

- Sloping of trenches
- Trench boxes
- Fencing
- Restricted areas
- Dust control
- Barricading
- Spill containment

Engineering controls will be used mainly to provide safety during trenching activities. All excavations must be completed in accordance with the requirements in the SHSP. The criteria to designate the use of engineering controls will be outlined in the SHSP.

Rigid chain-linked fencing and Level 3 safety traffic barriers surrounding the excavation (exclusion zone) will be used at all times during the piping removal activities.

6.5 Erosion Controls

Erosion control measures will be implemented to protect environmental conditions at the site and prevent impacts to off-site areas. The piping removal activities may create significant disturbance to existing vegetation (grass) at the site, which increases the potential for erosion. Prior to initiating intrusive work or disturbance of existing vegetation, a silt fence will be installed around the work area to prevent migration of sediments from the site during storm events. Grading will be maintained for the site at all times to prevent runoff from the site. After removal activities in an area are complete, wind fences will be constructed to prevent dust and soil from blowing off site until vegetation is re-established.

Work Plan for Limited Removal of Underground Product Piping

Former Amoco Terminal Property, Superior, WI

September 2, 2004

All land property including grass, gravel, and paved areas disturbed or damaged during the piping activities will be restored near original conditions suitable to the property owner.

7 Documentation Requirements

Upon completion of the piping removal project a report will be prepared to document the removal activities and accomplishments. Information to be documented in this report will include:

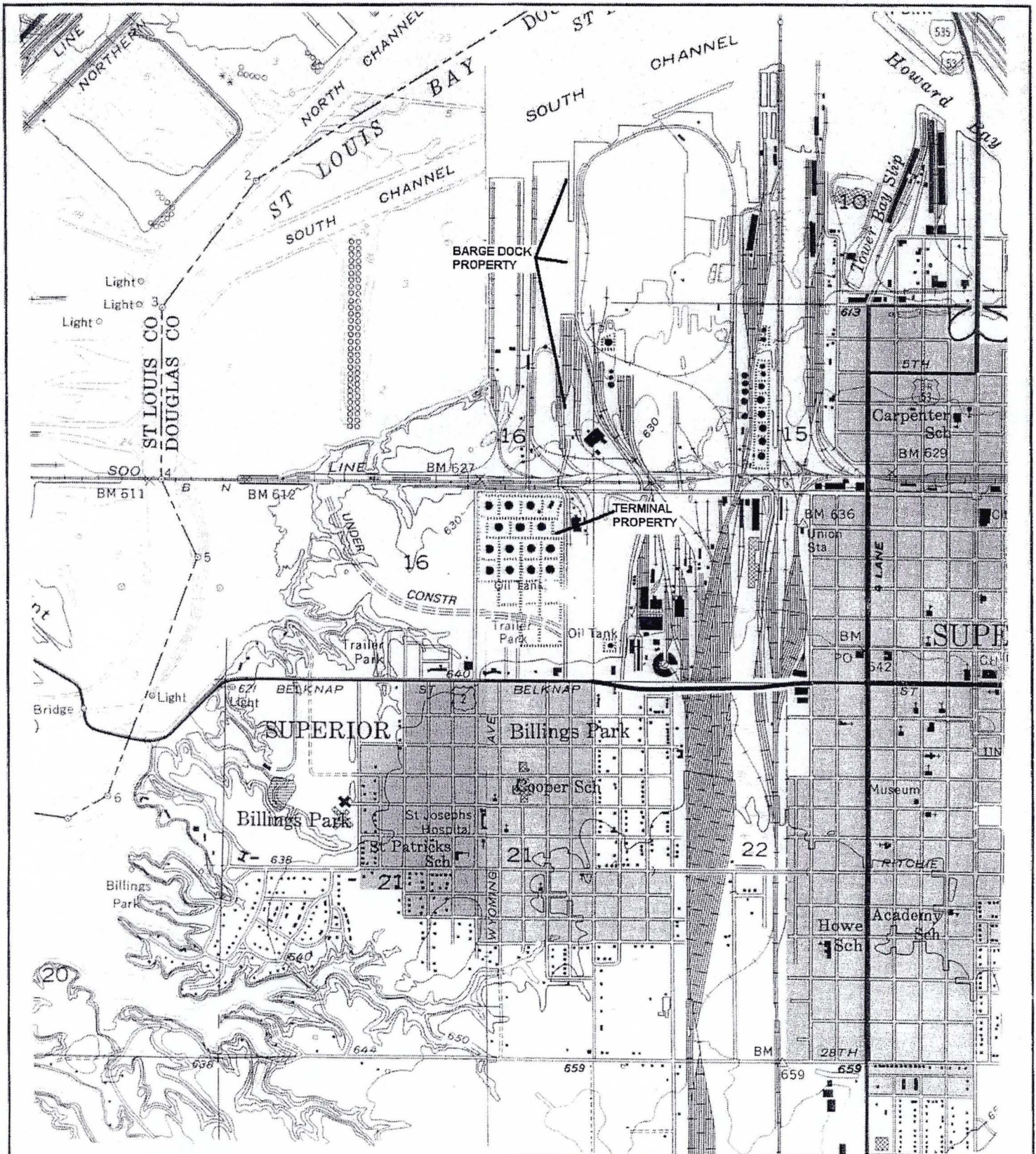
- Location of active utilities relocated or protected
- Location of piping corridors where piping was removed
- Location of any piping that is not removed
- Location of all subsurface structures (tanks, separators, and sumps) left in place
- Analytical results of unknown piping contents
- Air monitoring results
- Personnel training
- Quantity (tons) of FPH-saturated soil and process residual excavated and final disposition of material
- Quantity (tons, footage) of piping removed and final disposition of piping
- Quantity (tons) of concrete removed and final disposition of concrete
- Quantity (gallons) of liquids removed and final disposition of liquids

Table 1
 Summary of Piping in Work Area
 Former Amoco Terminal Property (Lake City Towing Property)
 2904 Winter Street, Superior, Wisconsin

Approximate Length Pipe (feet)	Number of Pipes				Total Pipes	Contents
	Pipe Diameter (inches)					
	4	6	8	10		
20			3		3	Diesel Fuels and Heating Oil
20				2	2	Diesel Fuels
20			2		2	Gasoline, Diesel Fuel, and/or Heating Oil
20			2		2	Unknown (gasoline and/or diesels)
					9	Total pipes possibly present in Work Area.

Table 2
 Utilities Present and Associated Protective Activities
 Former Amoco Terminal Property
 (Lake City Towing Property)
 2904 Winter Street, Superior, Wisconsin

Utility	Description	Action
Electrical	Most electrical power is conveyed through overhead lines, though at least one underground electrical line runs north-south through the Work Area (along east side). Electrical lines run along the western side of Maryland Avenue and onsite service the remediation systems.	Overhead line locations will be made known to subcontractors. Equipment reaching the height of the electric line will not be used in it's near vicinity.
Municipal and Third-party Utilities	A water line, gas line, and third-party petroleum line run along the west side of Maryland Avenue.	The contractor will ensure pipe exposure and removal activities will not expose or damage existing underground utilities in Maryland Avenue.
Existing Remediation System	Active free-phase hydrocarbon recovery and soil vapor extraction systems are present north and east of the office building.	The contractor will take measures not damage existing remedial system piping and wells. Before extending pipe removal operations into the remediation area the contractor will carefully expose pipes or wells.
Venting Lines and Monitoring Wells	A soil vapor extraction point and venting line is present adjacent to the east side of the Work Area. Several monitoring wells and recovery wells exist in the vicinity of the Work Area.	All wells will be protected and their locations will be made known to the subcontractor.



WEST DULUTH QUADRANGLE
MINNESOTA
7.5 MINUTE SERIES (TOPOGRAPHIC)

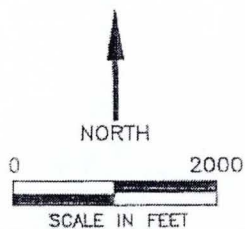


FIGURE 1
SITE LOCATION MAP
FORMER AMOCO TERMINAL AND BARGE
DOCK PROPERTIES
SUPERIOR, WISCONSIN

PROJECT NO.
10-88-457

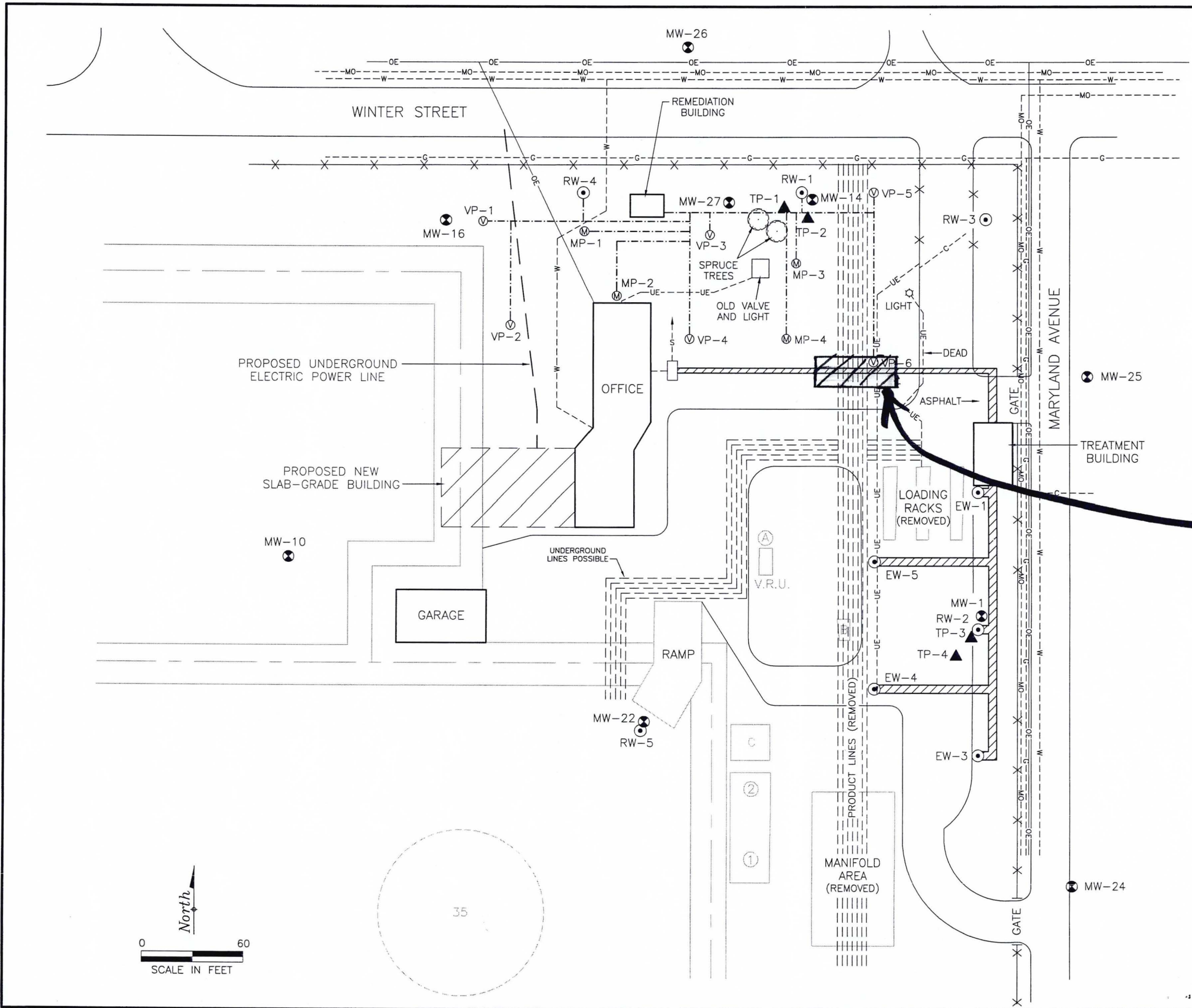
DATE
4/1/91

PREPARED BY

REVIEWED BY



Delta
Environmental
Consultants, Inc.



- LEGEND:**
- Ⓜ PROPOSED ADDITIONAL VAPOR POINT
 - Ⓥ PROPOSED MONITORING POINT
 - BURIED SOIL VENT LINES
 - ⊗ MONITORING WELL LOCATION
 - ⊙ RECOVERY WELL LOCATION
 - ▲ TEST POINT WELL
 - FENCE LINE
 - Ⓐ UNDERGROUND STORAGE TANK LOCATION (REMOVED)
 - 35 ABOVE GROUND STORAGE TANK LOCATION (REMOVED)
 - OE — OVERHEAD ELECTRIC LINE
 - UE --- UNDERGROUND ELECTRIC LINE
 - MO --- MURPHY OIL LINE
 - C --- COMMUNICATION LINE
 - G --- GAS LINE
 - W --- WATER LINE
 - S --- SEWER LINE
 - /// TRENCH

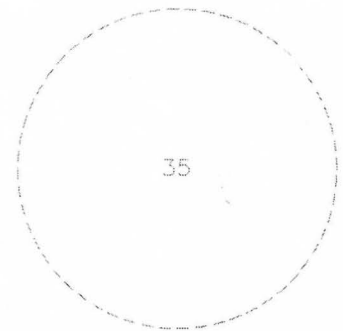
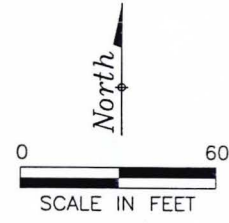
**Work Area
(proposed
piping removal)**

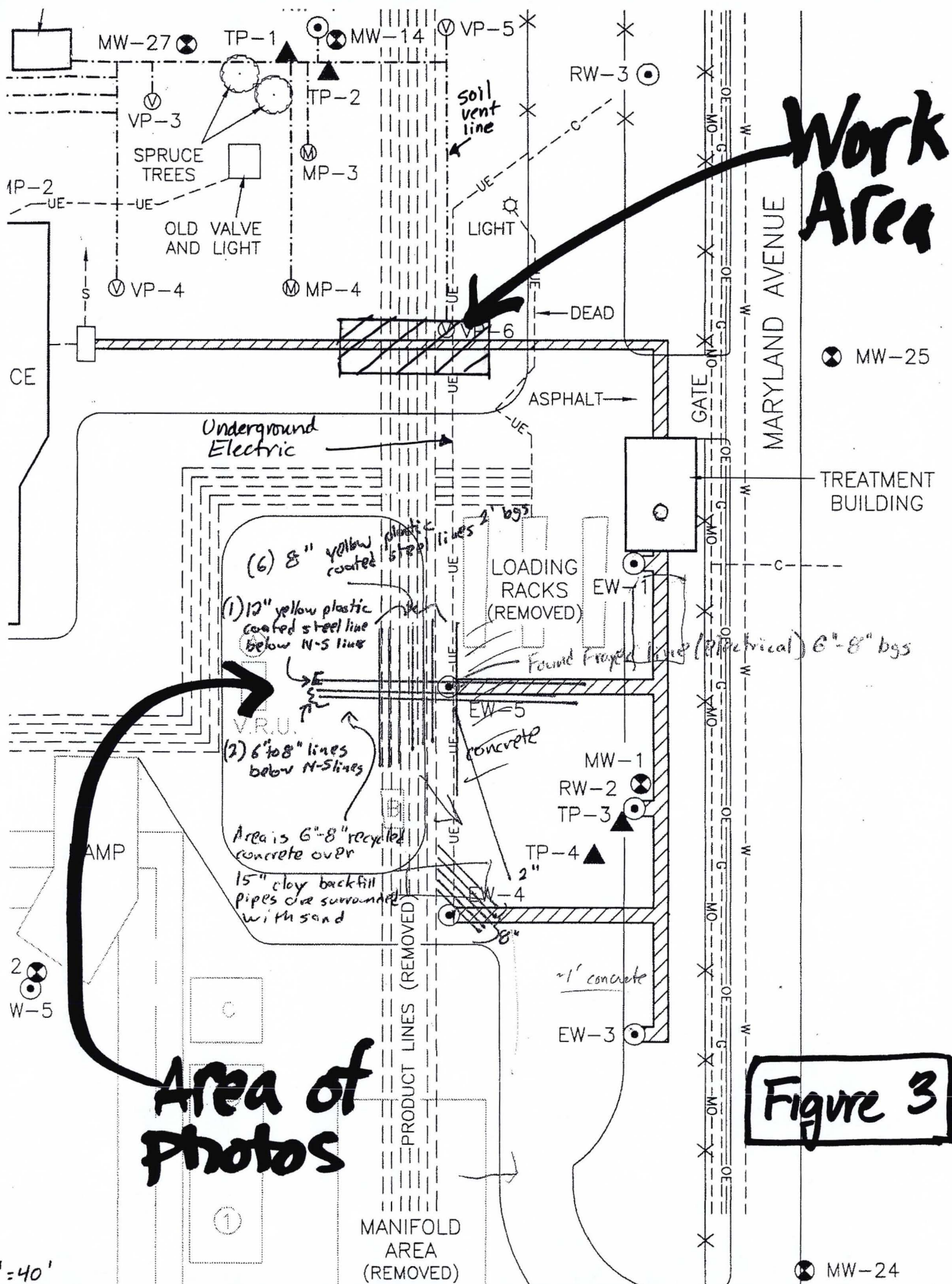
THIS DRAWING IS INTENDED TO SUPPLEMENT PROJECT DRAWINGS AND SPECIFICATIONS, WHICH TOGETHER SHALL BE USED FOR PERFORMING THE WORK. ALL BUILDING LAWS, RULES, AND REGULATIONS, HAVING JURISDICTION OVER THIS PROJECT SHALL BE PART OF THE DRAWINGS AND SPECIFICATIONS PREPARED BY THE OWNER AND THE CONTRACTOR PERFORMING THE WORK AND SHALL BE COMPLIED WITH BY THE OWNER AND THE CONTRACTOR.

REVISION	DATE	DESCRIPTION	DRAWN	REVIEW

FIGURE 2
TERMINAL PROPERTY SITE MAP
 FORMER AMOCO TERMINAL NO. 406
 2904 WINTER STREET
 SUPERIOR, WISCONSIN

PROJECT NO.: AMGO-06N	DRAWN BY: DD
PREPARED BY: NJ	DATE: 8/6/04
FILE NAME: 406-G3 Rev 1	





Work Area

Area of Photos

Figure 3

1" = 40'

WEST

WEST

(3)
8/10
(9/15)

3"

EW-5
PROPOSED
WEST DISTANCE

EAST

EAST (LOADING)

Photograph 1



EAST



WEST

Photograph 2

METHOD 9095A

PAINT FILTER LIQUIDS TEST

1.0 SCOPE AND APPLICATION

1.1 This method is used to determine the presence of free liquids in a representative sample of waste.

1.2 The method is used to determine compliance with 40 CFR 264.314 and 265.314.

2.0 SUMMARY OF METHOD

2.1 A predetermined amount of material is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5-min test period, the material is deemed to contain free liquids.

3.0 INTERFERENCES

3.1 Filter media were observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed.

3.2 Temperature can affect the test results if the test is performed below the freezing point of any liquid in the sample. Tests must be performed above the freezing point and can, but are not required to, exceed room temperature of 25° C.

4.0 APPARATUS AND MATERIALS

4.1 Conical paint filter: Mesh number 60 +/- 5% (fine meshed size). Available at local paint stores such as Sherwin-Williams and Glidden.

4.2 Glass funnel: If the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or glass funnel with a mouth large enough to allow at least 1 in. of the filter mesh to protrude should be used to support the filter. The funnel should be fluted or have a large open mouth in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the liquid that passes through the filter mesh.

4.3 Ring stand and ring, or tripod.

4.4 Graduated cylinder or beaker: 100-mL.

5.0 REAGENTS

5.1 None.

6.0 SAMPLE COLLECTION, PRESERVATION, AND HANDLING

6.1 All samples must be collected according to the directions in Chapter Nine of this manual.

6.2 A 100-mL or 100-g representative sample is required for the test. If it is not possible to obtain a sample of 100 mL or 100 g that is sufficiently representative of the waste, the analyst may use larger size samples in multiples of 100 mL or 100 g, i.e., 200, 300, 400 mL or g. However, when larger samples are used, analysts shall divide the sample into 100-mL or 100-g portions and test each portion separately. If any portion contains free liquids, the entire sample is considered to have free liquids. If the sample is measured volumetrically, then it should lack major air spaces or voids.

7.0 PROCEDURE

7.1 Assemble test apparatus as shown in Figure 1.

7.2 Place sample in the filter. A funnel may be used to provide support for the paint filter. If the sample is of such light bulk density that it overflow the filter, then the sides of the filter can be extended upward by taping filter paper to the inside of the filter and above the mesh. Settling the sample into the paint filter may be facilitated by lightly tapping the side of the filter as it is being filled.

7.3 In order to assure uniformity and standardization of the test, material such as sorbent pads or pillows which do not conform to the shape of the paint filter, should be cut into small pieces and poured into the filter. Sample size reduction may be accomplished by cutting the sorbent material with scissors, shears, knife, or other such device so as to preserve as much of the original integrity of the sorbent fabric as possible. Sorbents enclosed in a fabric should be mixed with the resultant fabric pieces. The particles to be tested should be reduced smaller than 1 cm (i.e., should be capable of passing through a 9.5 mm (0.375 inch) standard sieve). Grinding sorbent materials should be avoided as this may destroy the integrity of the sorbent and produce many "fine particles" which would normally not be present.

7.4 For brittle materials larger than 1 cm that do not conform to the filter, light crushing to reduce oversize particles is acceptable if it is not practical to cut the material. Materials such as clay, silica gel, and some polymers may fall into this category.

7.5 Allow sample to drain for 5 min into the graduated cylinder.

7.6 If any portion of the test material collects in the graduated cylinder in the 5-min period, then the material is deemed to contain free liquids for purposes of 40 CFR 264.314 and 265.314.

8.0 QUALITY CONTROL

8.1 Duplicate samples should be analyzed on a routine basis.

9.0 METHOD PERFORMANCE

9.1 No data provided.

10.0 REFERENCES

10.1 None provided.

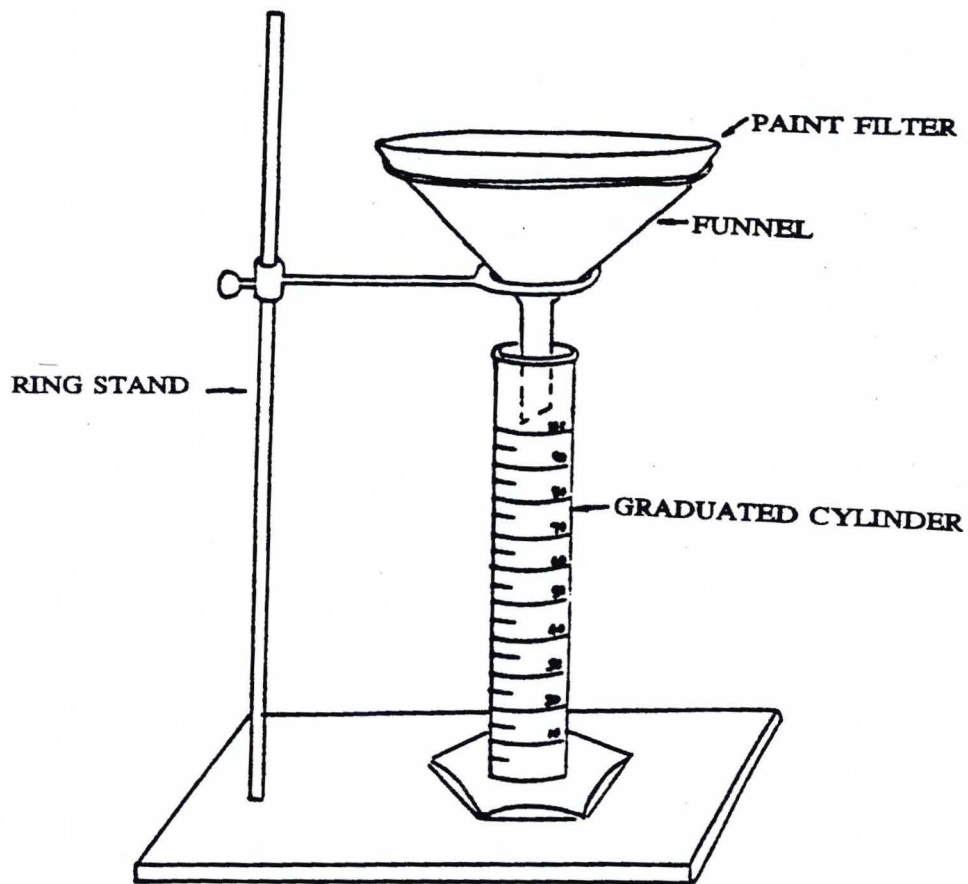
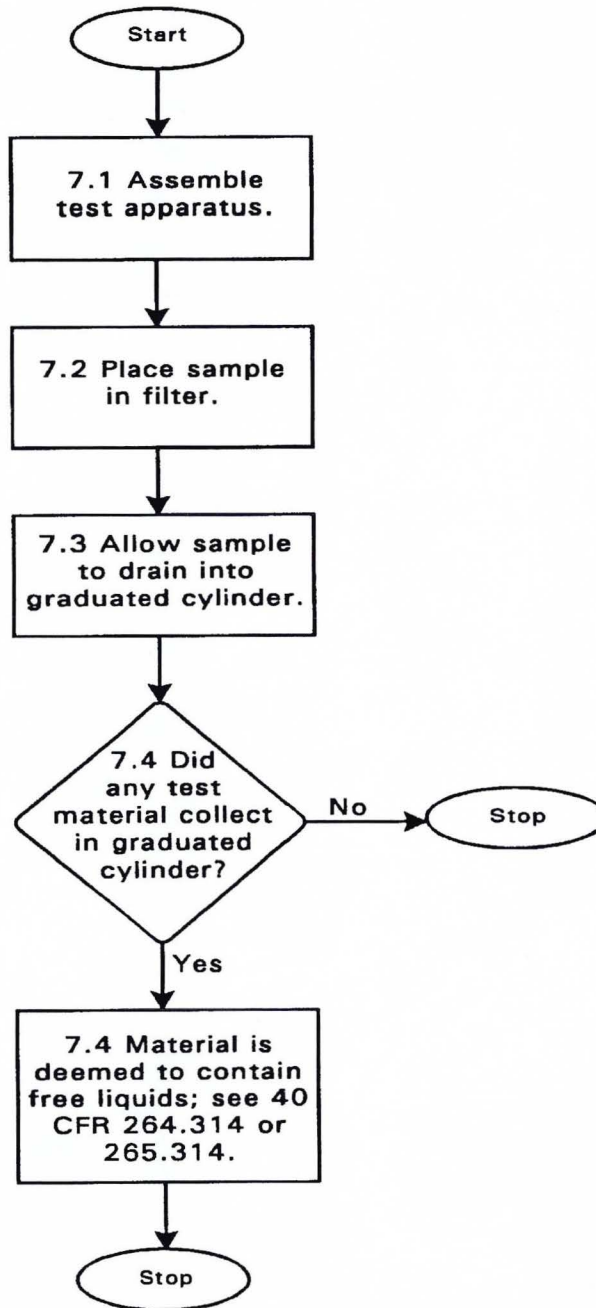


Figure 1. Paint filter test apparatus.

METHOD 9095A
PAINT FILTER LIQUIDS TEST





Delta Environmental Consultants, Inc.

BP Excavation Management Plan

SS #: 00406
 Facility #: _____
 Address: 2904 Winter Street
 City, State: Superior, Wisconsin

Construction Start Date: 8 September 2004
 Property Ownership: BP Products North America, Inc

Amoco Contractor Information:

General Co.:	<u>Stack Bros</u>	Contact & Phone #	<u>Bill Stack 218-348-2455 (cell)</u>
Excavator:	<u>Stack Bros</u>	Contact & Phone #	<u>Bill Stack 218-348-2455 (cell)</u>
Trucking Co.:	<u>Stack Bros</u>	Contact & Phone #	<u>Bill Stack 218-348-2455 (cell)</u>
Plumbing/Sewer	<u>Not applicable</u>	Contact & Phone #	_____
Concrete	<u>Not applicable</u>	Contact & Phone #	_____
Landscaping	<u>Stack Bros</u>	Contact & Phone #	<u>Bill Stack 218-348-2455 (cell)</u>
Asphalt	<u>Not applicable</u>	Contact & Phone #	_____
Asphalt Sealer	<u>Not applicable</u>	Contact & Phone #	_____
Sawcutting	<u>Stack Bros</u>	Contact & Phone #	<u>Bill Stack 218-348-2455 (cell)</u>
Fence	<u>Stack Bros</u>	Contact & Phone #	<u>Bill Stack 218-348-2455 (cell)</u>
Electrical:	<u>SWL&P</u>	Contact & Phone #	<u>800-227-7957</u>
Other:	<u>Delta Environmental</u>	Contact & Phone #	<u>Rick Carney (262) 827-4803</u>

Property Owner Contractor Information (if applicable):

General Co.:	_____	Contact & Phone #	_____
Excavator:	_____	Contact & Phone #	_____
Trucking Co.:	_____	Contact & Phone #	_____
Electrical:	_____	Contact & Phone #	_____
Other:	_____	Contact & Phone #	_____

Soil Management Details (attach sales agreement if applicable):

Area(s) of the property to be excavated (attach plan if available): Piping in vicinity of former Loading Racks at Terminal (see Figures 2 and 3 of Work Plan)

Party responsible for securing an excavation contractor: Delta Environmental Consultants

Party responsible for soil excavation costs: BP Products North America Inc.

Party responsible for securing a trucking company: _____

Party responsible for soil transportation costs: BP Products North America, Inc

Party responsible for "petroleum impacted" soil disposal costs: BP Products North America, Inc

Party responsible for "non-petroleum impacted" soil disposal costs: BP Products North America, Inc

What criteria must be met for soil to be removed from the property: Impacted soil will be stored or treated on site or transported for off-site treatment.



What, if any, soil sampling will be conducted during the excavation activities: PID readings will be recorded on both sides of an excavated pipe corridor.

Party responsible for groundwater disposal, if necessary for construction purposes: BP Products North America, Inc.

Party responsible for backfilling and compaction (if required): BP Products North America, Inc.

Describe in detail any other covenants or agreements, with regard to the excavation activities, not fully covered above: Property sale agreement with RRS, Inc.

Soil and Water Disposal information:

BP Amoco Approved Soil Disposal Facility: Timberline Trail RDF, Weyerhaeuser, Wisconsin
Contact & Phone No:
"Petroleum Impacted" Soil Criteria & Unit Cost:

Transportation Contractor: Stack Bros
Contact & Phone No: Bill Stack 218-348-2455 (cell)
Cost, per semi truck, per day:
"Broken asphalt and concrete" Unit Cost:

Water Disposal Contractor:
Contact & Phone No:
"Petroleum Impacted" Water Unit Cost:
"Non-Petroleum Impacted" Water Unit Cost:
"Product/Sludge" Unit Cost:

Excavation Contractor: Stack Bros
Contact & Phone No: Bill Stack 218-348-2455 (cell)
Excavation equipment to be used:

Agreement:

This Soil Management Plan has been developed based on existing environmental information and construction plans dated (not available). In the event site plans change or unanticipated conditions are encountered, this agreement shall be revised to determine roles and responsibilities for such changes or conditions.

Ray Stoelting BP Amoco Environmental Business Manager (signature/date/phone number)
Rick Carney Delta Environmental Project Manager (signature/date/phone number)
Property Owner (signature/date/phone number)
BP Amoco Attorney (if applicable) (signature/date/phone number)
Property Owner's Attorney (if applicable) (signature/date/phone number)



Distribution:

Ray Stoelting, BP-Environmental Business Manager