


# *Mickey Stevens Sports Complex*

Sandy Lane, Warwick,  
Rhode Island

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Prepared for: **City of Warwick**  
**Department of Public Works**

Prepared by:  **Vanasse Hangen Brustlin, Inc.**  
**Providence, Rhode Island**


July 2006

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July 2006

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# Executive Summary

At the request of The City of Warwick (the Client), Vanasse Hangen Brustlin, Inc. (VHB) has completed this Site Investigation Report (SIR) for a portion of the Mickey Stevens Sports Complex located off of Sandy Lane in Warwick, Rhode Island (referred to herein as the Site). The Site is located on a portion of property defined by the City of Warwick Tax Assessor's Office as Assessor's Plat (A.P.) 349, Lots 1 and 666 and A.P. 341, Lots 1 and 149. Only the northern portion of A.P. 349, Lot 1 was included in this investigation. Only the northern portion of the Site, which consisted of three baseball playing fields, a skateboard park, a grassy field, and a parking lot, was included as the study area as part of this investigation. The purpose of the study was to evaluate historical landusage associated with former use of the property as a landfill relative to existing baseball fields surfaces (i.e. landfill cover materials) and to approximate the thickness of the cover, which is an important component relative to field reconfiguration.

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## Site Location and Vicinity Description

The property is an approximately 60.61-acre parcel located on Sandy Lane in Warwick, Rhode Island. The Site, which is part of the 60.61 acre parcel is further identified on the City of Warwick Tax Assessor's Plat (A.P.) 349, Lots 1 and 666 and A.P. 341, Lots 1 and 149. The property is bounded on the north by Theodore Francis (T.F.) Green Airport and on the east, west, and south by a mixture of commercial and residential properties. Only the northern portion of the property, which consisted of three baseball playing fields, a skateboard park, a grassy field, and a parking lot, was included as the study area as part of this investigation. The northern portion of the property is currently under study for reconfiguration.

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## Site History Overview

Based on aerial photographs of the Site, an apparent landfill and trash incinerator operated on portions of the property identified as A.P. 349, Lots 1 and 666 and A.P. 341, Lots 1 and 149 from the 1950s to the late 1970s. Furthermore, according to the *Planning Study for Municipal Incinerator* report prepared for the Site in 1966, the Site



was used as a municipal landfill in the 1940s. A former incinerator was also located in the central portion of the Site, according to the 1966 report.

Based on historical site plans reviewed at the City of Warwick Department of Public Works, in the late 1970s, the City of Warwick converted the former landfill into recreational playing fields and a sports complex, known as the Mickey Stevens Sports Complex. Historical aerial photography revealed that the Site has remained relatively unchanged since the late 1970s and is currently used as a sports complex.

The City of Warwick has proposed changing the orientation of the present playing fields/surfaces and has proposed building a new concession stand. As a result, the City of Warwick hired VHB to determine whether or not the existing landfill cap was sufficient in thickness and if there were any applicable RIDEM regulatory criteria exceedances in environmental media at the Site including soil, groundwater, and soil gas.

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## Site Investigation and Soil and Groundwater Testing

Based upon review of historical data, areas of concern for the Site that could pose negative impacts to soil and groundwater included the following:

- Historical use of the Site as a landfill and incinerator.
- A former junk yard/land pit north of the baseball field now occupied by the compost facility.
- Use of underground storage tanks around the field perimeter at the following locations:
  - Ryder Transportation
  - The DPW Building
  - U.S. Army Reserve Building
  - The Cedar Swap Pumping Station

Based upon this information a subsurface investigatory program consisting of soil and groundwater testing was completed. Subsurface investigation activities at the Site included test pits, soil borings, monitoring well installation, soil sampling, and groundwater sampling.

The results of the data indicate minimal surficial impacts to the playing surface with a slight exceedance of RIDEM criteria at test pit TP-01. Results from sample locations of the playing surface show impacts above RIDEM criteria at test pits TP-02, TP-5, TP-8, TP-10, TP-12, and TP-13 (see **Figure 3** for locations and **Table 3** for data summaries).

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## Findings

VHB completed this Site Investigation with consideration to the scope and limitations outlined in our proposal dated May 9, 2006 at the Mickey Stevens Sports Complex located on Sandy Lane in Warwick, Rhode Island.

VHB observed that solid waste was located approximately six inches to five feet below grade on the baseball field portion of the Site. The northeast portion of the Site, in the vicinity of the skateboard park, solid waste was not encountered in the test pits, which were excavated to a depth of approximately 6 feet below grade. Likewise, the material in the northeast portion of the Site appeared to be sand and gravel.

Soil collected during test pitting activities on May 30, 2006 contained concentrations of beryllium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene that exceeded the RIDEM Residential Direct Exposure Criteria (R-DEC). Furthermore, concentrations of beryllium and benzo(a)pyrene in soil exceeded the RIDEM Industrial/Commercial Direct Exposure Criteria (I/C-DEC).

Based upon exceedances of RIDEM standards, a release notification was prepared and submitted to RIDEM on June 30, 2006.

Relative to the existing playing surface, VHB reported in the RIDEM notification submittal that only one exceedance of RIDEM criteria was detected on the playing surface at TP-01. This is only a slight exceedance and in the opinion of VHB, does not warrant immediate response actions. The package is under review relative to RIDEM concurrence.

With consideration to future development, it is the opinion of VHB that additional clean fill/cover materials will need to be placed on site to accomplish redevelopment. Two feet of clean cover material or 1 foot of clean cover material in conjunction with a geotextile fabric is a typical approach employed to meet RIDEM criteria. VHB advises review of this information with RIDEM to initiate the process of advancing the Site through the RIDEM site remediation/landfill closure program.

# 1

## Introduction

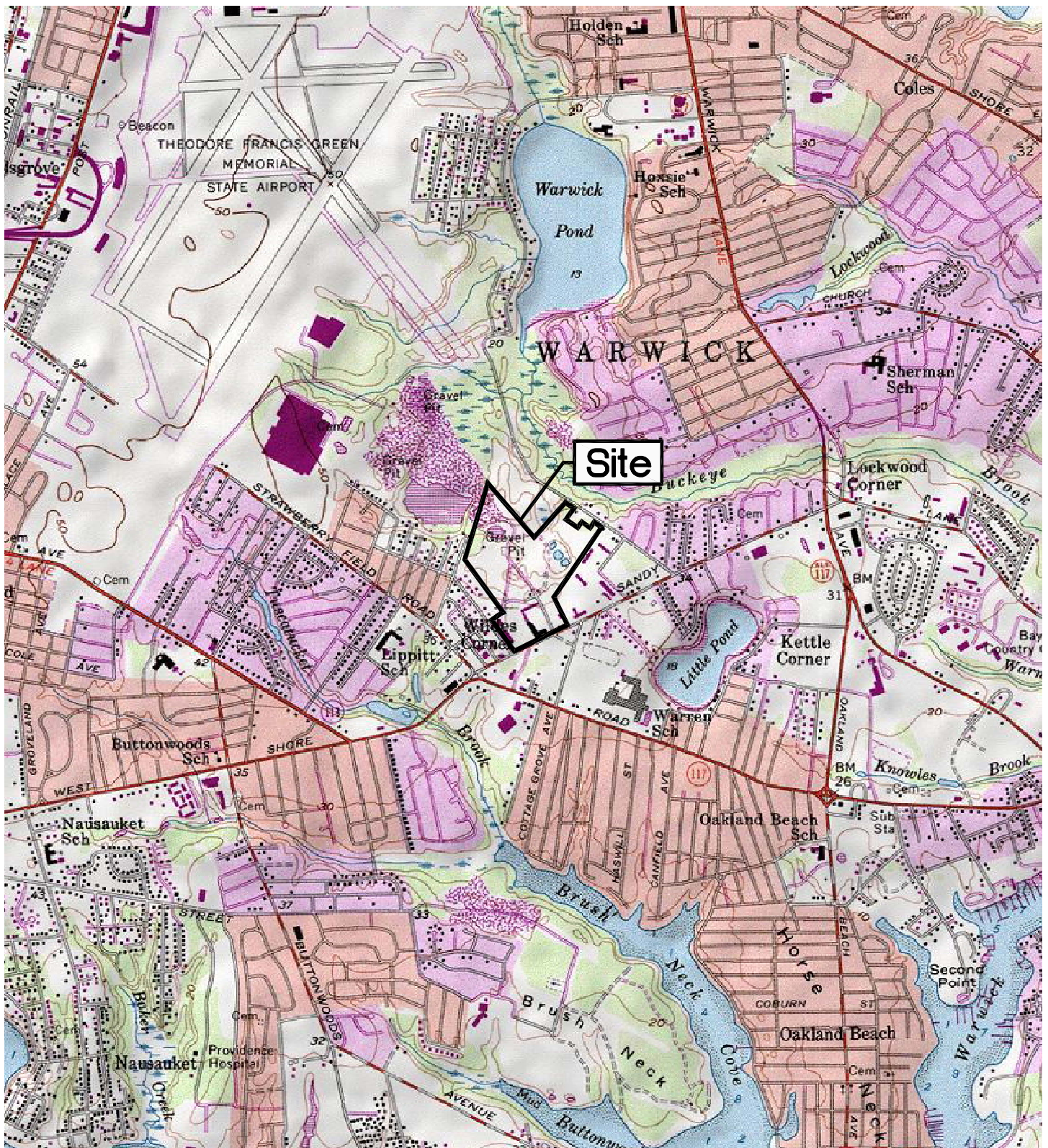
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### Purpose and Scope of Work

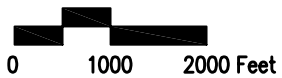
At the request of the City of Warwick (the Client), Vanasse Hangen Brustlin, Inc. (VHB) conducted an Environmental Site Investigation for the property located at Sandy Lane in Warwick, Rhode Island (referred to herein as “the Site”). The Site is further defined by as the Warwick Tax Assessor Plat (A.P.) 349/Lots 1 and 666 and A.P. 341/Lots 1 and 149. The Environmental Site Investigation was conducted in an effort to determine the thickness of the existing on-site landfill cap and to determine where or not the soils which comprise the landfill cap exceeded applicable Rhode Island Department of Environmental Management (RIDEM) regulatory criteria.

The scope of services for this investigation were completed in accordance with the VHB proposal dated May 9, 2006 and the Limitations provided in Appendix A, as well as inherit limitations typical to industry practice.

Based on the data obtained as part of this Environmental Site Investigation, data was formatted with consideration to the Site Investigation Report requirements of the RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (Remediation Regulations). All data obtained is presented in this report.



Source: USGS Quadrangles



Site Location Plan  
Mickey Stevens Sports Complex  
Sandy Lane  
Warwick, Rhode Island

Figure 1

# 2

## Site Description

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### Site Location and Description

The Mickey Stevens Sports Complex, consists of an approximately 60.61-acre parcel located on the northern side of Sandy Lane in Warwick, Rhode Island. A Site Location Map is included as **Figure 1**. The site is further identified by the Warwick Tax Assessor's Office as Assessor's Plat (A.P.) 349/Lots 1 and 666 and A.P. 341/Lots 1 and 149 and as being owned by the City of Warwick. Only the northern portion of the Site, consisting primarily of the baseball playing fields, a skate park, field and parking area was included in this investigation. These are the areas proposed for reconfiguration. Refer to **Figure 2** for a copy of the Tax Assessor's Map.

Based on previous reports, site plans, and historical aerial photographs, the Site was used as a former municipal landfill being in the 1940s and continuing until the late 1970s. In the late 1970s and early 1980s, the Site was converted from a municipal landfill to a sports complex, known as the Mickey Stevens Sports Complex. At the time of VHB's site reconnaissance, playing fields and buildings located at the Site included baseball fields, tennis/basketball courts, an indoor swimming pool, an indoor ice skating rink, the Warwick Police firing range, and the Warwick Department of Public Works.

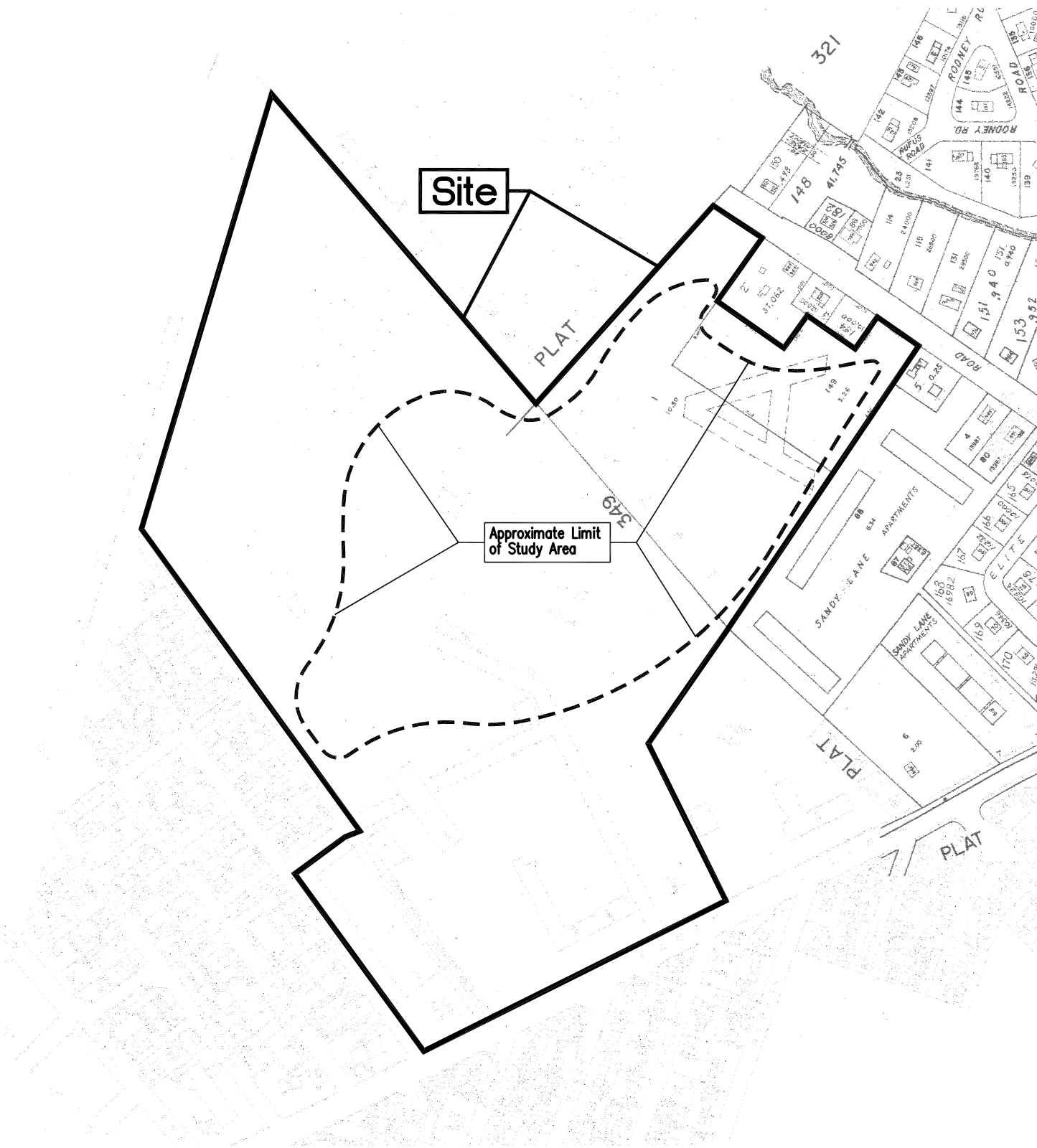
The property is bounded on the west and northwest by Gallway Street and Pinner Avenue, on the north by T.F. Green Airport, on the east by Cedar Swamp Road, and on the south by Sandy Lane.

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### Topography

The mean surface elevation of the Site was approximately 40 feet above the National Geodetic Vertical Datum of 1929 (USGS 7.5 minute series, east Greenwich, Rhode Island, Quadrangle). Based on USGS topographic mapping, the topography at the Site was generally flat.



Vanasse Hangen Brustlin, Inc.

Assessors Plan  
Mickey Stevens Sports Complex  
Sandy Lane  
Warwick, Rhode Island

Figure 2

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## Surficial Geology

According to the Soil Survey of Rhode Island (Rector 1981), various soil units were located at the Site.

The following soils were identified in the southern portion of the Site:

- Hinckley gravelly sandy loam rolling – consists of excessively drained soil found on terraces, outwash plains, kames, and eskers.
- Merrimac sandy loam – consists of gently sloping, somewhat excessively drained soil is on undulating terraces and outwash plains.
- Hinckley gravelly sandy loam – nearly level, excessively drained soil is found on terraces and outwash plains.
- Urban Land – consist mostly of sites for buildings, paved roads, and parking lots.

The following soils were identified in the central portion of the Site:

- Dumps – This unit consists of areas used for trash disposal.
- Walpole Sandy Loam – This nearly level, poorly drained soil is found in depressions and small drainageways of terraces and outwash plains.
- Merrimac sandy loam – consists of gently sloping, somewhat excessively drained soil is on undulating terraces and outwash plains.
- Hinckley gravelly sandy loam rolling – consists of excessively drained soil found on terraces, outwash plains, kames, and eskers.
- Sudbury sandy loam – This nearly level, moderately well drained soil is found in depressions in terraces and outwash plains.

The following soils were identified in the northern portion of the Site:

- Urban Land – consist mostly of sites for buildings, paved roads, and parking lots.
- Walpole Sandy Loam – This nearly level, poorly drained soil is found in depressions and small drainageways of terraces and outwash plains.
- Sudbury sandy loam – This nearly level, moderately well drained soil is found in depressions in terraces and outwash plains.
- Hinckley gravelly sandy loam – nearly level, excessively drained soil is found on terraces and outwash plains.
- Pits, gravel – This unit consists of areas that have been excavated for sand or gravel.
- Merrimac sandy loam – consists of gently sloping, somewhat excessively drained soil is on undulating terraces and outwash plains.

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## Bedrock Geology

According to the Bedrock Geology Map of Rhode Island (Hermes et al., 1994), the underlying bedrock located at the Site is the Rhode Island Formation (Pnbr). The bedrock consists of gray to black, fine- to coarse-grained quartz arenite, litharenite, shale, and conglomerate, with minor beds of anthracite and meta-anthracite.

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## Groundwater

Groundwater in the vicinity of the Site was classified by the Rhode Island Department of Environmental Management (RIDEM) as GB. GB groundwater classification applies to groundwater resources that are known or presumed to be degraded. As such, GB groundwater is not suitable for public or private drinking water use. The closest GA classification area was located approximately 5,000-feet east of the Site.

According to the RIDEM Wellhead Protection Map, the Site was not located within wellhead protection area. The closest non-community wellhead protection area was located approximately 2.5-miles west of the Site. The Site and surrounding area was connected to both municipal water and sewer.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology and characteristics of the soil. Based on topography, hydrology and previous environmental reports in the general vicinity of the Site, the inferred groundwater flow direction was to the north-northeast, towards Buckeye Brook.

Based on a March 1999 Site Investigation Report prepared by Geologic Services Corporation on the RYDER Transportation facility located in the western portion of the subject Site, depth to groundwater was approximately 17 to 20 feet below grade.

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## Wetlands

According to the RIDEM Geographic Information System Environmental Resource Map, wetlands were located in the northern and northeastern portions of the Site.

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## Surface Water

According to available topographic mapping, the nearest surface water bodies were four unnamed ponds located at the Site. These four unnamed ponds were not classified in the RIDEM Water Quality Regulations. However, Buckeye Brook was



located adjacent to the Site to the northeast and according to the RIDEM Water Quality Regulations, Buckeye Book was classified as Class B.

Class B surface water applies to waters designated for fish and wildlife habitat and primary and secondary contact recreational activities. Class B waters should be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses. Class B waters should have good aesthetic value.

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## Flood Plains

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the City of Warwick, Rhode Island (Community Panel No. 44540900006E, June 16, 1992), the northern portion of the Site is located within Other Flood Areas Zone X and the remaining portion of the Site is located within Other Areas Zone X. Other Flood Areas Zone X is defined as an area of 500-year flood. Other Areas Zone X is defined as areas determined to be outside the 500-year floodplain.

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## Description of Structures and Current Use

The Mickey Stevens Sports Complex is used by the City of Warwick for various sports activities and includes three baseball fields, basketball/tennis courts, a skate board park, and an indoor swimming pool. In addition to the sports component of the property, the City of Warwick also uses the Site as its Department of Public Works (DPW) facility, the Warwick Police Department firing range, and a RYDER Transportation facility. Prior to its current use, the Site was used as a municipal landfill from the 1940s to the late 1970s.

# 3

## Records Review

For historical information, VHB visited the Warwick City Hall and Warwick Department of Public Works, reviewed historical aerial photographs, and interviewed people knowledgeable of the Site. Information obtained is summarized below.

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### Chain of Title

According to Mr. John DeLucia, City Engineer for the City of Warwick, the City of Warwick has owned the Site since the 1940s.

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### Local Government Agency Record Review

The Warwick municipal offices were visited on April 21, 2006 to obtain information regarding Site history and use, zoning, and OHM use, storage, release, and/or disposal practices that may have occurred at the Site. Information obtained during the review is summarized below.

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### Assessor's Office

The Site was identified by the Warwick Tax Assessor's Office as a portion of 60.61-acre parcel located at A.P. 349, Lots 1 and 666 and A.P. 341, Lots 1 and 149. The current property owner listed for A.P. 349, Lot 1 and 666 and A.P. 341, Lots 1 and 149 was the City of Warwick. The property field cards, which were accessed online from the City of Warwick Tax Assessor's website, are located in **Appendix C**.

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## Department of Public Works

On April 21, 2006, VHB personnel reviewed files at the Warwick Department of Public Works (DPW). The following site plans depicting the subject Site were reviewed by VHB.

- Site Development Plan, dated February 28, 1978
- Detail Drawing of Mickey Stevens Sports Complex, dated February 28, 1978
- Site Plan for Mickey Stevens Sports Complex, dated January 1979
- Plat of Land at Fire Alarm Headquarters, dated October 1949
- Site Plan, dated 1975
- Construction Plans for an Irrigation System and Lighting of William H. Brophy Field at Mickey Stevens Sports Complex, dated September 1985
- Mickey Stevens Sports Complex, dated December 12, 1978
- Site Development Plan Sandy Lane Complex, dated February 28, 1978
- Sprinkler Layout Multipurpose Area Mickey Stevens Complex, dated September 11, 1978
- Mickey Stevens Sports Complex Underground Irrigation System, dated December 12, 1978
- Drainage at Swimming Pool, no date
- All Purpose Fields at Sandy Lane K-8, no date
- Miscellaneous on City Yard B-8, no date
- City Yard Parking Lot K-7, no date

Many of the historical site plans reviewed at the Warwick DPW depicted former structures and features related to the former landfill activities at the Site. For example, an “acid pit”, which was also referred to as a “chemical disposal pit” in some plans, was depicted in the northern portion of the property (approximately 100 feet north of the playing fields).

In addition to the acid/chemical disposal pit, the historical site plans depicted a former incinerator/transfer building located in the center portion of the Site.

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## The Warwick *Beacon* Newspaper

In the April 27, 2006 edition of the *Warwick Beacon* newspaper, Mr. Francis O’Neill, former chairperson of the Warwick Public Works Committee, was interviewed by the newspaper regarding the Site. Mr. O’Neill was a chairperson from 1948 to 1956 and was familiar with the landfill operations at the Site. According to Mr. O’Neill, the Site had been a sand and gravel quarry prior to its use as a landfill and once the Site became a landfill, it was never used commercially. Scavengers and pickers usually striped white goods at the landfill keeping the landfill “clean”, according to Mr. O’Neill. Likewise, according to Mr. O’Neill, approximately 40 feet of cans and bottles

are located at the Site. A copy of the *Warwick Beacon* article featuring the Site is included in **Appendix J**.

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## Historical Maps

Sanborn Maps are periodically issued fire insurance maps dating back to the late 1800's that show the building use, USTs, ASTs, heating sources, building construction, and other useful information. According to Environmental Data Resources Inc. (EDR), Sanborn Fire Insurance Company maps were not available for the Site.

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## Historical Topographic Maps

Historical topographic maps were reviewed through EDR and were available for the Site for the years 1942, 1957, 1970, 1975, and 1996. Historical topographic interpretations are summarized below.

### 1942 Topographic Map

Several wetland areas were depicted in the northern portion of the Site. The southern topography was dominated by areas of depressions. Buildings were located on the northern side of Sandy Lane at the Site.

T.F. Green Airport was located the northwest of the Site.

### 1957 Topographic Map

The Site was labeled as a gravel pit on the topographic map. Jeep trails were located in the central portion of the Site and three unnamed ponds were depicted in the eastern portion of the Site.

### 1970 Topographic Map

No significant changes were observed from the 1957 topographic map.

### 1975 Topographic Map

The northern portion of the Site was depicted as been a strip mine. The wetlands were no longer depicted in the northern portion of the Site.

### 1996 Topographic Map

The three unnamed ponds that were located in the eastern portion of the Site were no longer depicted in the topographic map. Additional buildings were located in the southern portion of the Site, adjacent to Sandy Lane.

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## Aerial Photography

VHB personnel reviewed aerial photographs dated 1939, 1951 to 1952, 1962, 1972, 1976, 1981, 1988, and 1992 for the Site and vicinity. Photograph interpretations are summarized below.

### 1939 Aerial Photograph

The Site appeared to have been a vacant, wooded lot.

Airplane runways associated with T.F. Green Airport were located to the northwest of the Site. The remainder of the surrounding properties appeared to be residential or wooded lots.

### 1951 to 1952 Aerial Photograph

The Site no longer appeared to be vacant. Large piles and numerous roads/trails were scattered throughout the Site.

The adjacent property to the north had a large disturbed area with apparent piles. This disturbed portion of the property was connected to the southeastern airport runway via a road.

The adjacent property to the west appeared to be a residential subdivision that had not been present in the 1939 aerial photograph.

The adjacent properties to the east and south appeared to be a mixture of farmland and residential properties.

### 1962 Aerial Photograph

A body of water was located in the northern portion of the Site. This body of water was not located at the Site in the 1951 to 1952 aerial photograph. Two distinct piles appeared to be located at the Site. The eastern pile was much lighter in color than the western pile. Two small buildings were located in the northern portion of the site, adjacent to the piles. A body of water, not apparent in the previous aerial photographs, was located in the northernmost portion of the site. A road/trail was located around the edge of the body of water and several apparent trailers were located on the road. Three additional bodies of water, not apparent in the previous aerial photographs, were located in the northeastern portion of the site. A series of buildings and parking lots were located at the Site along the northern side of Sandy Lane.

The properties located to the south of the Site, on the southern side of Sandy Lane, appeared to be a mixture of residential properties and recreational playing fields such as a baseball diamond and track.

The properties located to the east and west of the Site appeared to be residential.



The property located to the north of the Site had a body of water that was not apparent in the previous aerial photographs. The body of water to connected to the airport property via a road.

#### 1972 Aerial Photograph

The two distinct piles that were located in the 1962 aerial photograph were no longer located in the 1972 aerial. However, apparent piles were located throughout the Site and additional roads/trails were visible. The body of water located in the northern portion of the site appeared to have diminished in size versus the 1962 aerial photograph.

No significant changes were observed for the properties located to the south, east, and west of the Site.

The property to the north of the Site still had a road leading from the airport into the southern portion of the property. At the southern portion of the road, a very large area appeared to have been disturbed with several buildings and trailers located in this area. The body of water that had been identified at the property in the 1962 aerial was no longer visible.

#### 1976 Aerial Photograph

The bodies of water located in the northern portion of the Site and in the eastern portion of the Site were no longer visible. The Site appeared to be more vegetated but numerous roads/trails were still located at the Site.

No significant changes were observed for the surrounding properties.

#### 1981 Aerial Photograph

The central portion of the Site had previously been the location of large piles. However, three baseball diamonds and a series of tennis courts were located in the central portion of the Site in the 1981 aerial photograph.

The property located to the north of the Site appeared to be more vegetated

#### 1988 Aerial Photograph

The easternmost baseball diamond observed in the 1981 aerial photograph no longer existed. However, a new baseball diamond appeared to be in the initial construction phases in the western portion of the Site. Adjacent to this baseball diamond to the north, an area of potential dumping was visible. The area of potential dumping had large piles visible in the aerial photograph.

No significant changes were observed for the surrounding properties.

#### 1992 Aerial Photograph

No significant changes were observed from the 1988 aerial photograph.

Mickey Stevens – Historical Aerial Photographs



1939



1951-1952





1962



1972



1976



1981



1988



1992

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## Historical City Directories

City Street Directories were reviewed at the City of Warwick library in an effort to determine past uses of the property. No information was available for the Site.

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## Previous Investigations/Assessments

VHB conducted a file review at the RIDEM on April 11, 2006. Information gathered from this assessment is discussed in the Regulatory File Search Section of this report. The following environmental investigation was identified at the time of the RIDEM file review for the subject Site.

- Planning Study for Municipal Incinerator dated September 1, 1966, prepared for the City of Warwick by Fay, Spofford & Thorndike, Inc.
- Site Investigation Report (SIR) dated March 1998, prepared for RYDER Transportation by Geologic Services Corporation (GES)
- Operating Plan Re-registration dated November 2005 and revised March 9, 2006

# 4

## Regulatory File Search

A review of federal and state environmental databases and state and local records was conducted to help identify properties in the vicinity of the Site that have had a release or threat of release of oil and/or hazardous materials and may impact the environmental quality of the Site. VHB reviewed the following databases at the ASTM specified radii:

- National Priorities List (NPL); 1 mile - A database operated by the USEPA as an inventory of hazardous materials disposal sites that have been reported to the Federal government and been determined to be a priority for a Federally overseen cleanup.
- Resource Conservation and Recovery Information System (RCRIS) Transportation, Storage Disposal Facility (TSD); 0.5 mile - A database operated by the USEPA as an inventory of hazardous waste treatment, storage, and disposal facilities.
- RCRIS Generators (GN); 0.25 mile - A database operated by the USEPA as an inventory of hazardous waste generators who store hazardous waste on their properties for periods not to exceed 90 days.
- RCRIS Corrective Action Sites (COR); 1 mile - A database operated by the USEPA as an inventory of hazardous waste treatment, storage, and disposal facilities requiring a Federal oversight.
- RCRIS No Longer Regulated (NLR); 0.25 mile - A database operated by the USEPA as an inventory of former hazardous waste generators.
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) Sites; 0.5 mile - A database operated by the USEPA as an inventory of potential hazardous materials sites that have been reported to the Federal government.



- Emergency Response Notification System (ERNS); 0.25 mile - A database operated by the USEPA as an inventory of hazardous materials or petroleum spills.
- Facility Index System (FINDS); 0.25 mile - A database operated by the USEPA as an inventory of environmental permitted facilities (air, water, hazardous materials).
- State Hazardous Waste Sites (SHWS); 1 mile - A database operated by the Rhode Island Department of Environmental Management of properties regulated by the Rhode Island Remediation Regulations (hazardous materials and petroleum sites).
- Underground Storage Tanks (UST); 0.25 mile - A database of underground storage tank facilities.
- Leaking Underground Storage Tanks (LUST); 0.5 mile - A database of leaking underground storage tank facilities.
- Solid Waste Landfills (SWL); 0.5 mile - A database of active and closed solid waste landfills.

A summary of the database search information and maps indicating the locations of specific properties is provided in **Appendix D**. No NPL or COR sites were listed within the specified search distance. The database search identified one UST site, five SHWS sites, and six LUST sites. Based on the findings of the database review, VHB determined that a review of selected files at the RIDEM was necessary. The following files were requested from the RIDEM Office of Technical & Customer Assistance on April 11, 2006.

#### State Hazardous Waste Sites

- Warwick City Dump / Subject Site
- US Army Reserve Center / 885 Sandy Lane
- Truk-Away Landfill / Industrial Drive
- ET CO Cord Products / 333 Strawberry Field Road
- Municipal Auto Sales / 2670 West Shore Road
- Wellington Wetland Mitigation Area / Byfield Street

#### Leaking Underground Storage Tank Facilities

- RYDER Transportation / 112 Gallway Street / Subject Site
- US Army Reserve Center / 885 Sandy Lane
- Getty Service Station / 1015 Sandy Lane
- New England Telephone / 2556 West Shore Road
- Former Texaco Station / 2501 West Shore Road
- Cedar Swamp Pumping Station / Cedar Swamp Road



### Solid Waste Facilities

#### ➤ Warwick Compost Facility / Subject Site

The Site was identified as a State Hazardous Waste Site, as a LUST site, and as a Solid Waste Facility and information obtained at the time of the RIDEM file review regarding the Site is described in the following section.

Additionally, listed properties located in close proximity to the Site are described in the following section. Copies of the RIDEM files can be found in **Appendix E**. The remaining properties identified in the database search were not anticipated to present a significant threat to the Site based on the distance from the Site, direction with respect to inferred groundwater flow direction, and/or completed remedial status.



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### Subject Site / Warwick City Dump Warwick Tax Assessor's Plat 349, Lot 1 Sandy Lane, Warwick, RI

The subject Site was identified as the Warwick City Dump, which was listed as a State Hazardous Waste Site (SHWS) in the EDR database search.

One previous environmental report, the *Planning Study for Municipal Incinerator* prepared by Fay, Spofford & Thorndike, Inc., dated September 1, 1966, was available at RIDEM at the time of the file review.

According to the *Planning Study for Municipal Incinerator* report, the Site was used as a municipal landfill since the 1940s. Likewise, the landfill operated as an open burning dump with an incinerator. The incinerator was constructed in 1947 and was located in the central portion of the Site. According to the report, the eastern portion of the Site, which was located between Gallway Street and the former incinerator, was the open burning dump and was mounded with residue. The entire area east of the incinerator was used for sanitary landfill. A chemical disposal pit was located in the northern portion of the Site.



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### Subject Site / RYDER Transportation 112 Gallway Street, Warwick, RI

The RYDER Transportation facility occupied an approximately 1.75-acre portion of land in the western area of the 60.61-acre parcel of land identified as the subject Site. Three USTs were removed at the site on September 15, 1998 and included one 6,000-gallon diesel UST and two 4,000-gallon diesel USTs. At the time of the UST removal, an apparent release of diesel fuel to the subsurface was observed. As a result, Geologic Services Corporation (GES) completed a Site Investigation Report (SIR) in March 1999.



Approximately 140.45-tons of petroleum impacted soil were removed from the former UST area. Additionally, four monitoring wells, identified as MW-1 to MW-4 were installed (see location **Figure 3**) in the area surrounding the former USTs. According to the SIR, the petroleum impacted soil and groundwater appeared to be limited to the former UST area. On July 1, 1999, RIDEM issued the site a No Further Action Letter.



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**Subject Site / Warwick Compost Facility**  
Sandy Lane, Warwick, RI

The City of Warwick operates a leaf and yard waste composting facility at the subject Site, located in the northern portion of the Site. An *Operating Plan Reregistration* dated November 2005 and revised March 9, 2006 was available at the time of the RIDEM file review. Files available at the time of the RIDEM file review did not document a release of OHM associated with the Warwick Compost Facility.



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**United States Army Reserve Center**  
885 Sandy Lane, Warwick, RI

The United States Army Reserve Center was located adjacent to the Site to the east and was identified as both a LUST property and SHWS.

On April 28, 1999, two USTs were removed from the property, which included one 1,000-gallon No. 2 fuel oil UST and one 12,000-gallon No. 2 fuel oil UST. At the time of the UST removal, five soil samples were collected from the tank grave of the 1,000-gallon No. 2 fuel oil UST. Laboratory analytical results of these five soil samples for total petroleum hydrocarbons (TPH) contained concentrations ranging from not detected above the laboratory reporting limit to 470 parts per million (ppm). On September 22, 1999, RIDEM issued the property a No Further Action Letter regarding the two USTs that were removed.

In addition to the two USTs that were removed from the property, in correspondence dated May 24, 2001, the Department of the Army informed RIDEM that while clearing the property to construct a new parking lot, portions of a former landfill were discovered. The landfill area was located in the northern and western portions of the property and was approximately 90 feet wide by 220 feet long. Test pits were dug in the landfilled area and solid waste was observed from approximately 6 to 7 feet below grade along the western edge of the property and tapered to a depth of approximately 3 to 5 feet below grade in the eastern portion of the property. Soil testing was completed and concentrations of inorganic metals in soil exceeded the RIDEM Industrial/Commercial Direct Exposure Criteria (I/C-DEC).

In response to the Department of the Army's testing, RIDEM issued the property a Letter of Responsibility (LOR) on June 7, 2001. The RIDEM letter requested further study. In the most recent RIDEM correspondence observed at the time of the file review, dated September 12, 2003, RIDEM had not received any correspondence from the Department of the Army since issuing the property the LOR.



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**Municipal Auto Sales, Inc.**  
2626/2628 West Shore Road, Warwick, RI

This property was identified as a SHWS facility and was located approximately 1,700-feet southwest of the subject Site. On June 24, 1999, Municipal Auto Sales submitted a Notice of Release to RIDEM. TPH was detected in soil samples at a concentration exceeding the RIDEM Residential Direct Exposure Criteria (R-DEC). Approximately 35-tons of TPH contaminated soil was excavated from the property. On February 4, 2000, RIDEM issued the facility a No Further Action Letter.



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**Truk-Away Landfill**  
Industrial Drive, Warwick, RI

Located adjacent to the subject Site to the north, Truk-Away Landfill was listed as a SHWS facility in the EDR report. The landfill was purchased by the Rhode Island Department of Transportation, Division of Airports in 1977.

According to the *Final Site Inspection Prioritization Report*, prepared by CDM Federal Programs Corporation for the United States Environmental Protection Agency (USEPA) and dated December 19, 1993, the landfill accepted municipal and industrial wastes during its operations from 1970 to 1977. Hundreds of drums containing sulfur monochloride, benzyl chloride, xylol, toluene, pyridine, spent solvents, nitrobenzene, chlorobenzene, trichloroethylene, dyes, pigments, intermediate compounds made from benzene reactions, phenols, hydrogen peroxide, and benzene sulfonyl chloride were disposed of at the facility. The landfill had never been clean closed and various solid wastes were exposed in 1993 including medical waste, electrical waste, paint cans, mercury film packs, and fly ash.

Groundwater analytical data was compiled by Lincoln Environmental, Inc. in February 2005. Separate phase petroleum, measured from monitoring well MW-3 at a thickness of 1.08 feet, was sampled and analyzed for Fingerprint analysis and PCBs. Monitoring well MW-3 was located in the center portion of the property. The petroleum sample chromatograph collected from MW-3 most closely resembled a combination of gasoline range distillate and a lube stock distillate. The PCBs Aroclor-1016 and Aroclor-1260 were detected in monitoring well MW-3 at concentrations of 68 and 48 milligrams per kilogram, respectively.

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**Cedar Swamp Pumping Station**  
Cedar Swamp Road, Warwick, RI

This adjacent property to the east was identified as LUST facility. On September 14, 1995, one 2,500-gallon diesel UST was filled in place. A No Further Action Letter was issued by RIDEM on December 11, 1995 regarding the UST closure.

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**New England Telephone**  
2556 West Shore Road, Warwick, RI

The New England Telephone facility was located approximately 1,500-feet southwest of the subject Site and was listed as a LUST facility. One 4,000-gallon diesel UST and one 1,000-gallon No. 2 fuel oil UST were removed from the property on December 10, 1992. A Limited SIR was completed at the property and RIDEM issued a No Further Action Letter on July 21, 1993.

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**Former Texaco Station**  
2501 West Shore Road, Warwick, RI

The former Texaco Station was located approximately 1,100-feet south of the subject Site. One 1,000-gallon No. 2 fuel oil UST was removed from this LUST facility in June 1993. In October 1994, one 550-gallon waste oil UST was removed from the facility. On October 26, 1994, RIDEM issued the property a No Further Action Letter. Four USTs were removed from the facility on March 14, 1995 and included one 12,000-gallon unleaded gasoline UST, one 8,000-gallon unleaded gasoline UST, one 10,000-gallon unleaded gasoline UST, and one 8,000-gallon diesel UST. Approximately 90 cubic yards of soil containing petroleum were removed from the facility at the time of the March 1995 UST removal. On April 26, 1995, RIDEM issued the facility a No Further Action Letter.

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**Getty Service Station**  
1015 Sandy Lane, Warwick, RI

The RIDEM Office of Technical & Customer Assistance had no files for this property on April 11, 2006.

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## Other Sites Identified in the EDR Radius Report

The sites listed in **Table 5** are properties appearing in the database search located within the vicinity of the subject Site. Based upon a review of RIDEM records, and

the distance and direction of groundwater flow from the subject Site, these properties do not appear to present a significant environmental hazard to the subject Site.

**Table 1 – Nearby Listed Sites**

Site Name	Site Type	Address	Distance and Direction
*Spring Green Corp.	SHWS	---	---
*T.F. Green Airport (Former Hillsgrove)	SHWS	---	---
*Warwick Operational Maintenance Shop #	SHWS	---	---
* Warwick Organizational Maintenance Shop	SHWS	---	---
*Inskip Autocenter Dealership	SHWS	---	---
*Wellington Wetland Mitigation Area	SHWS	---	---
*RI DOT Lincoln Avenue Maintenance Facility	SHWS	---	---
*Oto Properties, LLC	SHWS	---	---
*CRB Incorporated	SHWS	---	---
*Green (T.F.) Airport	SHWS	---	---
*Appanoag Bridge	SHWS	---	---
*Rocky Point	SHWS	---	---
*Auburn Tool & Dye	SHWS	---	---
*Herff Jones	SHWS	---	---
*National Grid-E.G. Substation	SHWS	---	---
*Truk-Away (Airport) Landfill	SWF/LF	---	---
*Warwick Compost Facility	SWF/LF	---	---
*Goddard State Park	AST	---	---
*End of 2 <sup>nd</sup> Point Road C-Lock Marina	ERNS	---	---

\* According to the EDR report, the site was not mapped due to poor or inaccurate information.

# 5

## Site Reconnaissance

A site reconnaissance was completed and included walking the Site and site vicinity, identifying site boundaries, visually observing any potential areas of environmental concern. VHB was not accompanied by a City of Warwick representative. A Site Plan depicting pertinent Site features is provided as **Figure 3**. Photographs taken during the site reconnaissance are provided in **Appendix F**.

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### General Observations

Site reconnaissance was conducted by Ms. Emily Scursso and Mr. Ken McDermott of VHB on May 30, 2006. The reconnaissance was conducted by walking the Site.

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### Site Utilities

According to previous reports, including the 1966 *Planning Study for Municipal Incinerator* report, the Site was serviced by municipal water and sewer.

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### Drywells, Floor Drains and Sumps

The interior of the on-Site buildings were not inspected at the time of the site reconnaissance.

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### Polychlorinated Biphenyls

VHB did not observe any evidence, such as electrical equipment or transformers, indicating the presence of polychlorinated biphenyls (PCB) at the Site.

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## Asbestos Containing Materials/Lead Based Paint

The 1973 National Emission Standards for Hazardous Air Pollutants partially banned the use of spray-applied asbestos containing building materials (ACBM) in new buildings. The government expanded these regulations in 1975 and 1978 to ban the use of all types of ACBM in new buildings.

Many structures built before 1962 have paint that contains lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly.

Based on the aerial photographs of the Site, it appeared that no buildings were located at the Site subsequent to 1939. An ACBM/Lead Based Paint Survey was not completed since it was not in the scope of services.

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## Mercury Vapor

A comprehensive survey of possible mercury-containing materials was not part of the scope of services for this investigation and was not conducted.

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## Surface Conditions

The Site surface was improved with baseball fields, tennis/basketball courts, adjacent City property consists of the Warwick Police Firing Range, the RYDER Transportation facility, a compost recycling facility, an indoor pool, an ice skating rink, the Warwick DPW, and numerous parking lots. VHB did not note any staining or stressed vegetation on the surface portions of the Site during reconnaissance. Odors were evident and attributable to the compost facility.

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## Adjacent Properties

Adjacent properties include the United States Air National Guard complex to the south and east, the Sandy Lane Apartment Complex to the east, T.F. Green Airport to the north, and residential properties to the west.

# 6

## Subsurface Investigation Activities

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### Field Investigation Activities

Based on a review of historical aerial photographs, historical topographic maps, historical site plans, interviews, and previous investigations, VHB conducted subsurface investigations in the area of the current and proposed playing fields on May 30, 2006.

The subsurface investigation included the following activities: test pit investigation, soil sampling, monitoring well construction, and groundwater sampling. A site plan depicting the subsurface sampling locations is attached as **Figure 3**.

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### Subsurface Soil Investigation



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#### Test Pits

On May 30, 2006, VHB oversaw the excavation of thirteen test pits throughout the playing fields located in the northern portion of the Site. The test pits were excavated with an excavator operated by the City of Warwick Department of Public Works personnel. Ms. Emily Scurso, a VHB geologist, oversaw the test pitting activities and completed test pits logs.

Soil excavated from the test pits was field screened for total volatile organic compounds (TVOCs) (i.e. contents of some motor fuels, household chemicals, and solvents) using the standard gas headspace method and a Thermo 580B OVM. Headspace readings ranged from not detected to 0.9 parts per million per volume (ppmv) and are summarized in the test pit logs, which are attached as **Appendix G**.

VHB observed that solid waste (i.e. garbage bags, glass, cans, demolition debris, metal, and plastic) was located approximately six inches to 5 feet below grade in the





baseball diamond portion of the Site. The northeast portion of the Site, in the vicinity of the skateboard park, solid waste was not encountered in the test pits, which were excavated to a depth of approximately 6 feet below grade. Likewise, the material in the northeast portion of the Site appeared to be native sand and gravel.

Representative soil samples were collected from test pit and stored in laboratory prepared glassware, placed on ice, and submitted to ESS Laboratory of Cranston, Rhode Island under proper Chain of Custody for a variety of analysis based on field observations.

The soil samples collected from the test pits were analyzed for the following parameters: volatile organic compounds (VOC) via USEPA Method 8260B, total petroleum hydrocarbons (TPH) via USEPA Method 8100M, organochlorine pesticides via USEPA Method 8081A, semi-volatile organic compounds (SVOC) via USEPA Method 8270C, polychlorinated biphenyls (PCB) via USEPA Method 8082, and priority pollutant 13 (PP13) metals via USEPA Method 3050B. The priority pollutant 13 metals included antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Laboratory analytical results are summarized in **Section 7** of this report. Photographs of the test pits are included in **Appendix F**.

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## Soil Borings

On June 16, 2006, VHB oversaw the advancement of six soil borings, five of which were converted to groundwater monitoring wells. The sixth boring was converted into a screened section with a roadbox that was used as a soil gas extraction point. The soil borings, groundwater monitoring wells, and soil gas extraction point were installed by Subsurface Drilling & Remediation Company (Subsurface) of Cranston, Rhode Island on June 16, 2006 using a hollow stem auger drill rig. Soil was field screened for TVOC using the standard gas headspace method and a Thermo 580B OVM at five foot intervals. Headspace readings ranged from not detected to 1.5 parts per million per volume (ppmv) and are summarized in the soil boring logs are attached as **Appendix H**.

Representative soil samples were collected and stored in laboratory prepared glassware, placed on ice, and submitted to ESS Laboratory under proper Chain of Custody.

Soil samples collected from zero to two feet below grade from each of the soil borings were analyzed for beryllium via USEPA Method 3050B. Laboratory analytical results are summarized in **Section 7** of this report.

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**Soil Gas**

On July 19, 2006, VHB measured soil gas by using a MultiPro Gas Detector that was calibrated to detect oxygen, lower explosive limit (LEL), carbon monoxide, and hydrogen sulfide. Soil gas was measured from monitoring wells MW-100, MW-200, MW-400, and the soil gas extraction point that was installed adjacent to MW-500. A background reading was also collected. The readings are summarized below.

**MW-100**

Oxygen = 5.3%  
LEL = 02%  
Carbon Monoxide = 0ppm  
Hydrogen Sulfide = 0ppm

**MW-200**

Oxygen = 0.9 %  
LEL = 2%  
Carbon Monoxide = 0ppm  
Hydrogen Sulfide = 0ppm

**MW-400**

Oxygen = 0.9%  
LEL = 0L%  
Carbon Monoxide = 0ppm  
Hydrogen Sulfide = 0ppm

**Gas Point (Adjacent to MW-500)**

Oxygen = 14.1%  
LEL = 0%  
Carbon Monoxide = 0ppm  
Hydrogen Sulfide = 0ppm

**Background**

Oxygen = 20.9%  
LEL = 0%  
Carbon Monoxide = 4ppm  
Hydrogen Sulfide = 0ppm

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**Groundwater Investigation**

Five soil borings were completed as two-inch diameter groundwater monitoring wells on June 16, 2006. The monitoring wells were constructed of Schedule-40 PVC and contained a 15-foot section of 10-slot (0.01-inch) screen. A sand filter pack was



placed in the borehole annulus to a depth of approximately two feet above the top of the screened interval and an approximately two-foot bentonite seal was placed above the sand pack. The monitoring wells were installed so the water table bisected the screened section, with solid PVC riser between the top of the screen and the ground surface. Monitoring well locations are provided on the Site Plan attached as **Figure 3**.

On June 22, 2006, the five newly installed monitoring wells were developed. On June 26, 2006, VHB measured depth to groundwater and gauged the newly installed monitoring wells to the nearest 0.01-foot relative to the high point of the PVC using an oil/water interface probe.

The monitoring wells were sampled using low flow groundwater methods. This included taking readings for pH, dissolved oxygen, specific conductivity, conductivity, temperature, turbidity, and oxygen reduction potential.

Groundwater samples were collected by directly filling laboratory prepared glassware and placing the samples on ice in an insulated cooler under proper Chain of Custody until the samples were delivered to ESS Laboratory. The groundwater samples were analyzed for the following parameters: volatile organic compounds (VOC) via USEPA Method 8260, total petroleum hydrocarbons (TPH) via USEPA Method 8100, and dissolved metals via USEPA Method 3005A/6000/7000. Laboratory analytical results are summarized in **Section 7** of this report.

# 7

## Subsurface Site Investigation Findings

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### Establishment of RIDEM Objective Criteria

Based in the Site's current use as a recreational facility and RIDEM's GB Groundwater Criteria, VHB has conservatively applied the RIDEM Residential Direct Exposure Criteria (R-DEC) and GB Leachability Criteria (GB-LC) to the soil. Soil was also compared to the RIDEM Industrial/Commercial Direct Exposure Criteria (I/C-DEC). A summary of detected compounds in soil is attached as **Table 2**.

Groundwater at the Site has been classified by RIDEM as GB; therefore, VHB has applied the RIDEM GB Groundwater Objective (GB-GO) to groundwater. A summary of detected compounds in groundwater is attached as **Table 3**. The laboratory reports are attached as **Appendix I**.

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### Laboratory Analysis Results



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#### Test Pit Soil Analysis

Seventeen soil samples, which were collected from thirteen test pits identified as TP-01 through TP-13, were submitted to ESS Laboratory on May 30, 2006. All seventeen soil samples were analyzed for VOC via USEPA Method 8260B, TPH via USEPA Method 8100M, organochlorine pesticides via USEPA Method 8081A, SVOC via USEPA Method 8270C, PCB via USEPA Method 8082, and PP13 metals via USEPA Method 3050B.

No VOCs were detected at concentrations that exceeded the laboratory reporting limit in soil samples collected from the test pits. One VOC, bromomethane, was detected at a concentration below that laboratory reporting limit at 28.2 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). This sample was collected from test pit TP-01 at an interval of 0.5 to 2.0 feet below grade (fbg).

TPH was detected at concentrations exceeding the laboratory reporting limit in three of the soil samples collected. TPH was detected in soil samples collected from test pits TP-02 at 0.5 to 2.0 fbg, TP-09 at 0 to 0.5 fbg, and TP-13 at 0.5 to 1.0 fbg, at concentrations of 39.9 mg/kg, 30.5 mg/kg, and 30.1 mg/kg, respectively.

The following organochlorine pesticides were detected at concentrations that exceeded the laboratory reporting limits: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-chlordane, dieldrin, endrin, gamma-chlordane. All of the soil samples contained concentrations of organochlorine pesticides that exceeded the laboratory reporting limit except for soil samples collected from test pits TP-03 at 0 to 0.5 fbg and TP-14 at 0 to 0.5 fbg.

Numerous SVOCs were detected at concentrations that exceeded the laboratory reporting limits. All thirteen soil samples submitted to the laboratory had at least one SVOC that exceeded the laboratory reporting limits.

One PCB, aroclor 1254, was detected at a concentration of 169 µg/kg in soil collected from test pit TP-04 at an interval of 0 to 0.5 fbg. No additional PCBs were detected at concentrations that exceeded the laboratory reporting limits.

Nine metals, including arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, and zinc, were detected in soil. All seventeen soil samples submitted to the laboratory contained concentrations of at least one metal that exceeded the laboratory reporting limit.

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## Soil Boring Soil Analysis

Five soil samples, which were collected from five soil borings identified as B-100 through B-500, were submitted to ESS Laboratory on June 16, 2006. Additionally, one sample of gravel sized granite rocks were submitted to ESS Laboratory. All five soil samples and the rock sample were analyzed for beryllium via USEPA Method 3050B. The soil samples were collected from an interval of approximately zero to two feet below grade and the rocks were collected from the surface located in the northeast portion of the Site.

Concentrations of beryllium exceeded the laboratory detection limit in each of the samples submitted.

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## Groundwater Analysis

Five groundwater samples were collected on June 26, 2006 from the five newly installed monitoring wells designated as monitoring wells MW-100 to MW-500. The

five groundwater samples were submitted to ESS Laboratory and analyzed for dissolved metals via USEPA Method 3005A/6000/7000, VOC via USEPA Method 8260B, and TPH via USEPA Method 8100.

Two dissolved metals including thallium and zinc were detected above laboratory reporting limits.

Four VOCs including cis-1,2-Dichloroethene, methyl tert-butyl ether, trichloroethene, and vinyl chloride were detected above the laboratory detection limits.

TPH was detected in three of the five groundwater samples above the laboratory reporting limits.

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## Comparison to RIDEM Regulatory Criteria

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### Soil

The laboratory detected compounds in soil were compared to the RIDEM Residential Direct Exposure Criteria (R-DEC), the RIDEM Industrial/Commercial Direct Exposure Criteria (I/C-DEC), and the RIDEM GB Leachability Criteria (GB-LC).

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### Test Pits

One VOC, bromomethane, was detected at a concentration of 28.2 µg/kg from soil collected from test pit TP-01 at an interval of 0.5 to 2.0 fbg. The R-DEC and I/C-DEC for bromomethane are 800 µg/kg and 2,900,000 µg/kg, respectively. Therefore, no laboratory detected VOCs in soil exceeded the RIDEM R-DEC or the I/C-DEC. RIDEM has not established GB-LC for bromomethane.

TPH was detected at concentrations of 39.9 mg/kg, 30.5 mg/kg, and 30.1 mg/kg from soil samples collected from test pits TP-02 at 0.5 to 2.0 fbg, TP-09 at 0 to 0.5 fbg, and TP-13 at 0.5 to 1.0 fbg, respectively. Detected concentrations of TPH did not exceed the RIDEM R-DEC, I/C-DEC, or GB-LC, which are 500 mg/kg, 1,000 mg/kg, and 1,000 mg/kg, respectively.

The laboratory detected concentrations of organochlorine pesticides in soil did not exceed any applicable RIDEM regulatory criteria.

Multiple SVOCs exceeded the applicable RIDEM regulatory criteria from soil samples collected from test pits TP-02, TP-06, TP-15, and TP-17. The SVOCs that exceeded the applicable RIDEM regulatory criteria included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene,

chrysene, and phenanthrene. Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, and phenanthrene in soil exceeded the R-DEC. In addition to exceeding the R-DEC, concentrations of benzo(a)pyrene in soil exceeded the I/C-DEC, which was collected from test pits TP-07 at 0.5 to 2.0 fbg and TP-17 at 0.5 to 1.0 fbg.

Concentrations of laboratory detected PCBs in soil did not exceed any applicable RIDEM regulatory criteria.

Nine metals were detected at concentrations that exceeded the laboratory reporting limit in soil. Concentrations of beryllium exceeded the R-DEC in soil samples collected from test pits TP-02 at 0.5 to 2.0 fbg, TP-03 at 0 to 0.5 fbg, TP-10 at 0 to 0.5 fbg, TP-12 at 0 to 0.5 fbg, TP-15 at 0 to 0.5 fbg, and TP-16 at 0 to 0.5 fbg. In addition to exceeding the R-DEC, soil collected from test pit TP-10 at 0 to 0.5 fbg contained concentrations of beryllium that exceeded the RIDEM I/C-DEC. The eight additional metals detected at concentrations that exceeded the laboratory reporting limits were not reported at concentrations that exceeded applicable RIDEM regulatory criteria.

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## Groundwater

The laboratory detected compounds in groundwater were compared to the RIDEM GB Groundwater Objective (GB-GO). Metals, VOCs, and TPH did not exceed the applicable RIDEM GB-GO.

# 8

## Remedial Alternatives

VHB has developed the following summary of selected remedial alternatives to address site impacts.

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### Option 1 – Impacted Soil Excavation and Offsite Disposal

This option would consist of the total excavation of contaminated soils and replacement of contaminated soils above the RIDEM Residential DEC criteria. Excavation is traditionally one of the simplest and most conclusive forms of site remediation. This option is not feasible because impacts are likely related to former landfilling activities inherent not only to the Site but Site area. The cost of soil disposal and clean fill materials associated with this approach would be exorbitant and likely exceed the value of the property.

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### Option 2 – No Action / Natural Attenuation

The No Action/Natural Attenuation remedial response action is most appropriate for sites where the migration of site contaminants is expected to be minimal and the concentration of migrating contaminants poses no significant risks to human health or the environment. Under the present circumstances, the No Action/Natural remedial solution is not feasible as some soil impacts exceed both the residential and industrial/commercial DEC. Therefore, the No Action remedial response would pose a level of unacceptable risks to human health and the environment.

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### Option 3 – Manage Access, Maintain Existing Cap and Complete Environmental Land-Use Restriction

It is the opinion of VHB that exposure pathways can be eliminated by controlling access and utilizing the building, pavement, play fields, and landscaped access as an



existing cap. Since the contaminated soil would be left in place with a cap remedy, an ELUR will be required for the Site. An ELUR is a legal document drafted for the purpose of placing a notice of restrictions on the use or physical condition of a property for the protection of human health. The ELUR will require that the capped portions of the property remain in place and are properly maintained and that the Site be prohibited from installing a drinking water well.

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## VHB's Remedial Alternative Recommendation

It is VHB's opinion that the most effective way of bringing the Site into compliance with RIDEM regulations for these issues is to select **Option 3**.

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## Compliance with RIDEM Risk Management Provisions

The proposed Remedial Alternative will be implemented with the intent to provide conservative levels of protection for human health and the environment. The remedial goals seek to meet the Method 1 Standards of Risk Management outlined in Section 8.00 of the RIDEM Remediation Regulations by eliminating the exposure pathway so as to be compliant with the Rule 8.10 of the Remediation Regulations.

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## Technical Feasibility

The Remedial Alternative selected is not an innovative or unproven remedial technology. Caps and ELUR's are well-established and a conservative approach to the management and risk to human health associated with direct exposure to contamination.

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## Compliance with Federal, State, and Local Regulations

The proposed Remedial Alternative will require the involvement and approval of several governmental agencies. The following agency may become involved in one or more of the events leading up to project completion:

RIDEM – Office of Waste Management  
RIDEM – Office of Water Resources – Freshwater Wetlands Section  
RIDEM – Landfill Program

# 9

## Findings

At the request the City of Warwick, Vanasse Hangen Brustlin, Inc. conducted a Site Investigation for a parcel of property known as the Mickey Stevens Sports Complex located on the northern side of Sandy Lane in Warwick, Rhode Island. The Site was further defined by the City of Warwick Tax Assessor's Office as A.P. 349, Lots 1 and 666 and A.P. 341, Lots 1 and 149.

VHB completed this PESA with consideration to the scope and limitations of ASTM E 1527-00 and our proposal dated May 9, 2006. A summary of findings is presented below:

- Based on historical site plans, aerial photographs, previous reports, and interviews with City personnel, the Site had been used as a municipal landfill from approximately the 1940s until the late 1970s. Structures associated with the former landfill included a former acid/chemical disposal pit and a former incinerator/transfer building.
- According to the RIDEM Groundwater Classification Map for the Warwick Quadrangle (2005), groundwater at the Site has been classified as GB. This classification applies to groundwater resources that are known or presumed to be degraded, and is not suitable for public or private drinking water use.
- VHB reviewed data from various agencies, historic site plans, and previous reports to develop a site history. Evaluation was also completed pertaining to historic information relative to the potential usage and/or storage of oil and/or hazardous materials (OHM). The complete review is included in the report narrative. Relevant information is summarized below:
  - Based on depictions of the Site in historical site plans, an acid/chemical disposal pit was located in the northern portion of the Site.
  - According to historical site plans, a former gasoline pump was located in the southern portion of the Site, adjacent to the Warwick Public Works building to the north. No information regarding a UST associated with this former gasoline pump was available at the time of VHB's RIDEM file review.

- According to information on file at RIDEM, the Site is listed as a State Hazardous Waste Site, a LUST facility, and as a Solid Waste facility.
- One report was available at the time of the file review regarding the State Hazardous Waste Site status of the subject Site. Based on a 1966 *Planning Study for Municipal Incinerator* by Fay, Spofford & Thorndike, Inc. the Site operated as a burning dump from the 1940s to the mid 1960s. Likewise, an incinerator, constructed in 1947, with a capacity of 100 tons per day was located in the center portion of the Site. The land between the former incinerator and Gallway Street was mounded with residue, according to the 1966 report. At the time of the RIDEM file review, no documentation was observed regarding whether or not the former landfill was clean closed or capped.
- The RYDER Transportation facility is located in the western portion of the subject Site was listed as a LUST site by RIDEM. Three USTs were removed at the site on September 15, 1998 and included one 6,000-gallon diesel UST and two 4,000-gallon diesel USTs. At the time of the UST removal, an apparent release of diesel fuel to the subsurface was observed. As a result, Geologic Services Corporation (GES) completed a Site Investigation Report (SIR) in March 1999. Approximately 140.45-tons of petroleum impacted soil were removed from the former UST area. According to the SIR, the petroleum impacted soil and groundwater appeared to be limited to the former UST area. On July 1, 1999, RIDEM issued RYDER Transportation a No Further Action Letter regarding the closed USTs.
- The City of Warwick operates a leaf and yard waste composting facility at the subject Site, which is located in the northern portion of the Site. This portion of the Site was listed as a Solid Waste Facility by RIDEM. An *Operating Plan Reregistration* dated November 2005 and revised March 9, 2006 was available at the time of the RIDEM file review. Files available at the time of the RIDEM file review did not document a release of OHM associated with the Warwick Compost Facility.
- Several area properties were identified during the EDR search indicating the storage and/or releases of OHM. Properties of significance are summarized below.
- The United States Air National Guard property, which is located adjacent to the subject site to the south and east, uncovered landfill material during construction activities in 2001. The landfill area was located in the northern and western portion of the property. Concentrations of inorganic metals in soil exceeded the RIDEM I/C-DEC. RIDEM issued the property a Letter of Responsibility (LOR) on June 7, 2001. In the most recent RIDEM correspondence observed at the time of the file review, dated September 12,

2003, RIDEM had not received any correspondence from the Department of the Army since issuing the property the LOR.

- The former Truk-Away landfill, located adjacent to the subject Site to the north, was listed as a SHWS facility in the EDR report. According to the *Final Site Inspection Prioritization Report*, prepared by CDM Federal Programs Corporation for the United States Environmental Protection Agency (USEPA) and dated December 19, 1993, the landfill accepted municipal and industrial wastes during its operations from 1970 to 1977. Hundreds of drums containing sulfur monochloride, benzyl chloride, xylol, toluene, pyridine, spent solvents, nitrobenzene, chlorobenzene, trichloroethylene, dyes, pigments, intermediate compounds made from benzene reactions, phenols, hydrogen peroxide, and benzene sulfonyl chloride were disposed of at the facility. The landfill had never been clean closed and various solid wastes were exposed in 1993 including medical waste, electrical waste, paint cans, mercury film packs, and fly ash. Separate phase petroleum was identified in on-property monitoring wells.

The results of the subsurface investigation indicate exceedances of Rhode Island Department of Environmental Management (RIDEM) notification criteria exist for soils on the baseball playing fields located in the northern portion of the Site. Laboratory results from soil and groundwater are summarized below:

- Multiple SVOCs exceeded the applicable RIDEM regulatory criteria from soil samples collected from test pits TP-02, TP-06, TP-15, and TP-17. The SVOCs that exceeded the applicable RIDEM regulatory criteria included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, and phenanthrene. Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, and phenanthrene in soil exceeded the R-DEC. In addition to exceeding the R-DEC, concentrations of benzo(a)pyrene in soil exceeded the I/C-DEC, which was collected from test pits TP-07 at 0.5 to 2.0 fbg and TP-17 at 0.5 to 1.0 fbg. Concentrations of beryllium exceeded the R-DEC in soil samples collected from test pits TP-02 at 0.5 to 2.0 fbg, TP-03 at 0 to 0.5 fbg, TP-10 at 0 to 0.5 fbg, TP-12 at 0 to 0.5 fbg, TP-15 at 0 to 0.5 fbg, and TP-16 at 0 to 0.5 fbg. In addition to exceeding the R-DEC, soil collected from test pit TP-10 at 0 to 0.5 fbg contained concentrations of beryllium that exceeded the RIDEM I/C-DEC.
- The laboratory detected compounds in groundwater were compared to the RIDEM GB Groundwater Objective (GB-GO). Metals, VOCs, and TPH did not exceed the applicable RIDEM GB-GO.

Based on the data obtained, there are regulatory exceedances in soil on the Site that require notification to the RIDEM pursuant to Section 5.01 of the RIDEM Remediation Regulations (DEM-DSR-01-93).

With consideration to the above, the existing land use/foreseeable land use as recreational, and review of various remedial alternatives presented in this report, it is the opinion of VHB that a remedy consisting of a cap and environmental land use restriction would be appropriate.

Relative to the existing playing surface, VHB reported in the RIDEM notification submittal that only one exceedance of RIDEM criteria was detected on the playing surface at TP-01. This is only a slight exceedance and in the opinion of VHB, does not warrant immediate response actions. The package is under review relative to RIDEM concurrence.

With consideration to future development, it is the opinion of VHB that additional clean fill/cover materials will need to be placed on site to accomplish redevelopment. Two feet of clean cover material or 1 foot of clean cover material in conjunction with a geotextile fabric is a typical approach employed to meet RIDEM criteria. VHB advises review of this information with RIDEM to initiate the process of advancing the Site through the RIDEM site remediation/landfill closure program

# 10

## References

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# List of Acronyms

ACM	Asbestos Containing Materials
AST	Above Ground Storage Tank
ASTM	American Society of Testing and Materials
BTEX	Benzene, Toluene, Ethyl benzene, Xylene
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
COR	Corrective Action Sites
DEC	Direct Exposure Criteria
DPW	Department of Public Works
DWF	Double Wall Fiberglass
ERNS	Emergency Response Notification System
FINDS	Facility Index System
GEN	Generators
GW-#	Groundwater Category
IRA	Immediate Response Action
LBP	Lead Based Paint
LUST	Leaking Underground Storage Tanks
MADEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
MTBE	Methyl Tertiary Butyl Ether
NLR	No Longer Regulated
NPL	National Priorities List
PCB	Poly Chlorinated Biphenyls
PSI	Preliminary Site Investigation
RAO	Response Action Outcome
RC	Reportable Concentration
RCRA	Resource Conservation and Recovery Act
RIDEM	Rhode Island Department of Environmental Management
S-#	Soil Category
SPILLS	State Spills List
STATE	State Sites
SWL	Solid Waste Landfills

TPH	Total Petroleum Hydrocarbons
TSD	Transportation, Storage, Disposal Facility
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compounds





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# Tables

**Table 2**  
**Summary of Detected Compounds Soil**  
**Collected May 30, 2006 and June 16, 2006**  
**Mickey Stevens Sports Complex**  
**Sandy Lane**  
**Warwick, Rhode Island**

City of Warwick  
 Site Investigation Report  
 July 2006

Sample #	Date																							Regulatory Criteria			
	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10	-11	-12	-13	-14	-15	-16	-17	-19	-25	-31	-34	-38	-43	R-DEC	I/C-DEC	GB-LC	
Date	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	05/30/06	06/16/06	06/16/06	06/16/06	06/16/06	06/16/06	06/16/06				
Time	08:30	08:50	09:30	10:00	10:20	10:45	11:00	11:15	11:45	11:50	12:05	13:05	13:10	13:20	13:45	14:00	14:05	09:10	10:00	12:00	14:20	16:05	17:00				
Location	TP-01	TP-01	TP-02	TP-03	TP-04	TP-05	TP-05	TP-06	TP-07	TP-08	TP-09	TP-10	TP-10	TP-11	TP-12	TP-13	TP-13	B-100	B-200	B-300	B-400	B-500	Rocks				
Depth (feet)	0-0.5	0.5-2	0-0.5	0-0.5	0-0.5	0-0.5	0.5-2	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0.5-1	0-0.5	0-0.5	0-0.5	0.5-1	0-2	0-2	0-2	0-2	0-2	Surface				
<b>Total Metals via Method 3050B</b>																											
<b>Arsenic</b>	mg/kg	2.6	2.1	2.2	2.4	2.4	ND<1.6	3.2	1.9	2.5	ND<1.5	ND<1.5	6.0	4.5	ND<1.5	5.7	4.5	1.4	NA	NA	NA	NA	NA	NA	7.0	7.0	NE
<b>Beryllium</b>	mg/kg	0.39	<b>0.42</b>	<b>0.45</b>	0.37	0.33	0.22	0.39	0.22	0.22	<b>0.49</b>	0.15	<b>1.58</b>	0.37	0.20	<b>0.42</b>	<b>0.68</b>	0.24	0.26	0.33	0.18	0.18	0.29	0.17	0.4	1.3	NE
<b>Cadmium</b>	mg/kg	ND<0.65	0.95	ND<0.62	ND<0.62	ND<0.61	ND<0.66	ND<0.61	ND<0.63	ND<0.69	ND<0.60	ND<0.61	ND<3.50	ND<0.62	ND<0.59	ND<0.66	ND<0.68	ND<0.57	NA	NA	NA	NA	NA	NA	39	1,000	NE
<b>Chromium</b>	mg/kg	7.5	17.8	5.4	5.5	5.9	5.3	5.6	12.1	4.4	3.2	2.4	9.9	6.0	3.0	8.5	8.1	4.0	NA	NA	NA	NA	NA	NA	390	10,000	NE
<b>Copper</b>	mg/kg	10.2	28.6	48.2	9.1	4.2	8.2	9.5	47.1	5.8	1.8	1.7	15.3	17.3	3.8	23.0	13.4	6.7	NA	NA	NA	NA	NA	NA	3,100	10,000	NE
<b>Lead</b>	mg/kg	20.9	72.1	23.7	20.9	11.0	15.1	12.0	82.3	36.2	ND<6.0	ND<6.1	ND<35.0	7.2	ND<5.9	21.4	39.0	56.1	NA	NA	NA	NA	NA	NA	150	500	NE
<b>Mercury</b>	mg/kg	ND<0.038	0.085	ND<0.038	0.038	ND<0.036	ND<0.037	ND<0.035	0.122	ND<0.039	ND<0.032	ND<0.030	ND<0.040	ND<0.036	ND<0.030	ND<0.040	0.137	ND<0.036	NA	NA	NA	NA	NA	NA	23	610	NE
<b>Nickel</b>	mg/kg	4.2	6.5	3.3	3.4	3.1	3.3	3.8	7.5	ND<3.5	ND<3.0	ND<3.0	ND<17.5	3.5	ND<2.9	4.9	3.9	3.1	NA	NA	NA	NA	NA	NA	1,000	10,000	NE
<b>Zinc</b>	mg/kg	46.5	112	59.7	34.4	19.9	48.2	30.2	127	12.2	24.5	9.0	110	14.3	14.2	33.5	53.9	30.6	NA	NA	NA	NA	NA	NA	6,000	10,000	NE
<b>VOC via Method 8260B</b>																											
<b>Bromomethane</b>	µg/kg	ND<145	28.2 J	ND<96.4	ND<20.0	ND<101	ND<121	ND<97.1	ND<81.2	ND<133	ND<84.2	ND<83.6	ND<167	ND<116	ND<59.5	ND<137	ND<149	ND<105	NA	NA	NA	NA	NA	NA	800	2,900,000	NE
<b>Pesticides via Method 8081A</b>																											
<b>4,4'-DDD</b>	µg/kg	ND<5.95	9.63	ND<5.68	ND<5.49	ND<5.43	15.9	ND<5.49	ND<5.55	8.16	ND<5.24	ND<5.38	ND<6.30	5.62	ND<5.15	ND<6.25	8.64	ND<5.49	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>4,4'-DDE</b>	µg/kg	8.15	16.5	ND<5.68	ND<5.49	7.24	55.6	10.4	15.4	74.8	6.21	24.0	121	140	ND<5.15	201	115	36.5	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>4,4'-DDT</b>	µg/kg	15.7	59.1	ND<5.68	7.07	23.8	46.7	ND<5.49	21.4	69.6	ND<5.24	9.24	76.4	124	ND<5.15	204	116	51.9	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>alpha-Chlordane</b>	µg/kg	ND<5.95	27.1	ND<5.68	ND<5.49	10.6	21.0	ND<5.49	103	ND<5.49	ND<5.38	ND<6.30	ND<6.30	ND<5.62	ND<5.15	ND<6.25	ND<6.10	51.2	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>Chlordane (Total)</b>	µg/kg	ND<59.5	79.9	ND<56.8	ND<54.9	ND<54.3	76.3	ND<54.9	311	ND<61.0	ND<52.4	ND<53.8	ND<63.0	ND<56.2	ND<51.5	ND<62.5	ND<61.0	154	NA	NA	NA	NA	NA	NA	500	4,400	NE
<b>Dieldrin</b>	µg/kg	ND<5.95	ND<5.32	ND<5.68	ND<5.49	ND<5.43	ND<5.75	ND<5.49	8.19	ND<6.10	ND<5.24	ND<5.38	ND<6.30	ND<5.62	ND<5.15	ND<6.25	ND<6.10	ND<5.49	NA	NA	NA	NA	NA	NA	40	400	NE
<b>Endrin</b>	µg/kg	ND<5.95	ND<5.32	ND<5.68	ND<5.49	14.1	ND<5.75	ND<5.49	ND<5.55	ND<6.10	ND<5.24	ND<5.38	ND<6.30	ND<5.62	ND<5.15	ND<6.25	ND<6.10	ND<5.49	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>gamma-Chlordane</b>	µg/kg	ND<5.95	18.1	ND<5.68	ND<5.49	10.4	12.1	ND<5.49	40.7	ND<6.10	ND<5.24	ND<5.38	ND<6.30	ND<5.62	ND<5.15	ND<6.25	ND<6.10	36.1	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>PCB via Method 8082</b>																											
<b>Aroclor 1254</b>	µg/kg	ND<59.5	ND<53.1	ND<56.8	ND<54.9	169	ND<57.4	ND<54.9	ND<55.4	ND<60.9	ND<52.3	ND<53.7	ND<62.9	ND<56.1	ND<51.5	ND<62.4	ND<60.9	ND<54.9	NA	NA	NA	NA	NA	NA	10,000	10,000	10,000
<b>TPH via Method 8100M</b>																											
<b>TPH</b>	mg/kg	ND<30.2	39.9	ND<28.7	ND<27.7	ND<27.4	ND<28.3	ND<28.3	ND<27.4	30.5	ND<26.2	ND<26.3	ND<31.3	ND<27.3	ND<25.4	ND<31.8	ND<30.8	30.1	NA	NA	NA	NA	NA	NA	500	2,500	2,500
<b>SVOC via Method 8270C</b>																											
<b>Acenaphthene</b>	µg/kg	ND<396	ND<344	ND<390	ND<373	ND<357	158 J	ND<365	ND<371	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	ND<426	ND<401	124 J	NA	NA	NA	NA	NA	NA	43,000	10,000,000	NE
<b>Acenaphthylene</b>	µg/kg	ND<396	55.8 J	ND<390	ND<373	ND<357	158 J	ND<365	ND<371	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	59.7 J	ND<401	165 J	NA	NA	NA	NA	NA	NA	23,000	10,000,000	NE
<b>Anthracene</b>	µg/kg	ND<396	85.0 J	ND<390	ND<373	ND<357	799	ND<365	ND<371	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	49.1 J	ND<401	855	NA	NA	NA	NA	NA	NA	35,000	10,000,000	NE
<b>Benzo(a)anthracene</b>	µg/kg	81.3 J	437	ND<390	ND<373	101 J	<b>5,890</b>	ND<365	140 J	81.2 J	ND<358	ND<363	ND<432	ND<373	74.1 J	393 J	94.7 J	<b>2,200</b>	NA	NA	NA	NA	NA	NA	900	7,800	NE
<b>Benzo(a)pyrene</b>	µg/kg	93.3 J	<b>441</b>	ND<196	ND<187	87.2 J	<b>4,350</b>	39.8 J	200	92.3 J	ND<179	ND<182	ND<216	ND<187	92.5 J	382	114 J	<b>2,110</b>	NA	NA	NA	NA	NA	NA	400	800	NE
<b>Benzo(b)fluoranthene</b>	µg/kg	250 J	540	ND<390	173 J	236 J	<b>5,040</b>	ND<365	343 J	101 J	ND<358	144 J	ND<432	ND<373	220 J	564	254 J	<b>2,230</b>	NA	NA	NA	NA	NA	NA	900	7,800	NE
<b>Benzo(g,h,i)perylene</b>	µg/kg	49.6	225 J	ND<390	ND<373	52.6 J	<b>1,600</b>	ND<365	110 J	50.7 J	ND<358	ND<363	ND<432	ND<373	49.2 J	304 J	81.4 J	<b>1,100</b>	NA	NA	NA	NA	NA	NA	800	10,000,000	NE
<b>Benzo(k)fluoranthene</b>	µg/kg	ND<396	367	ND<390	ND<373	75.1 J	<b>3,400</b>	ND<365	177 J	ND<412	ND<358	ND<363	ND<432	ND<373	70.3 J	266 J	72.6 J	<b>1,150</b>	NA	NA	NA	NA	NA	NA	900	78,000	NE
<b>bis(2-Ethylhexyl)phthalate</b>	µg/kg	86.1 J	83.3 J	91.0 J	ND<373	422	141 J	ND<365	22,800	148 J	98.5 J	106 J	76.0 J	129 J	109 J	135 J	112 J	412	NA	NA	NA	NA	NA	NA	46,000	410,000	NE
<b>Butylbenzylphthalate</b>	µg/kg	ND<396	ND<344	ND<390	ND<373	ND<357	ND<389	ND<365	40.8 J	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	ND<426	ND<401	46.9 J	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>Carbazole</b>	µg/kg	ND<396	ND<344	ND<390	ND<373	ND<357	385 J	ND<365	ND<371	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	ND<426	ND<401	99.7 J	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>Chrysene</b>	µg/kg	92.5 J	<b>468</b>	59.7 J	ND<187	118 J	<b>5,630</b>	46.0 J	172 J	154 J	ND<179	ND<182	ND<216	ND<373	102 J	<b>481</b>	120 J	<b>2,100</b>	NA	NA	NA	NA	NA	NA	400	780,000	NE
<b>Dibenzo(a,h)Anthracene</b>	µg/kg	ND<199	ND<172	ND<196	ND<187	ND<179	134 J	ND<183	ND<186	ND<206	ND<179	ND<182	ND<216	ND<373	ND<341	ND<241	ND<201	107 J	NA	NA	NA	NA	NA	NA	400	800	NE
<b>Dibenzofuran</b>	µg/kg	ND<396	ND<344	ND<390	ND<373	ND<357	64.7 J	ND<365	ND<371	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	ND<426	ND<401	92.1 J	NA	NA	NA	NA	NA	NA	NE	NE	NE
<b>Fluoranthene</b>	µg/kg	195 J	982	87.5 J	59.8 J	267 J	12,400	58.0 J	241 J	156 J	ND<358	ND<363	ND<432	ND<373	258 J	857	216 J	5,890	NA	NA	NA	NA	NA	NA	20,000	10,000,000	NE
<b>Fluorene</b>	µg/kg	ND<396	ND<344	ND<390	ND<373	ND<357	158 J	ND<365	ND<371	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	ND<426	ND<401	315 J	NA	NA	NA	NA	NA	NA	28,000	10,000,000	NE
<b>Indeno(1,2,3-cd)Pyrene</b>	µg/kg	ND<396	227 J	ND<390	ND<373	52.6 J	<b>1,670</b>	ND<365	108 J	ND<412	ND<358	ND<363	ND<432	ND<373	49.2 J	299 J	75.8 J	<b>1,080</b>	NA	NA	NA	NA	NA	NA	900	7,800	NE
<b>Phenanthrene</b>	µg/kg	64.7 J	344	ND<390	ND<373	182 J	2,880	ND<365	ND<371	131 J	ND<358	ND<358	ND<432	ND<373	169 J	438	85.0 J	3,670	NA	NA	NA	NA	NA	NA	40,000	10,000,000	NE
<b>Phenol</b>	µg/kg	ND<396	ND<344	ND<390	ND<373	ND<357	ND<389	ND<365	147 J	ND<412	ND<358	ND<363	ND<432	ND<373	ND<341	ND<426	ND<401	ND<364	NA	NA	NA	NA	NA	NA	6,000,000	10,000,000	NE
<b>Pyrene</b>	µg/kg	118 J	707	125 J	40.4 J	173 J	7,790	103 J	210 J	248 J	ND<358	ND<363	ND<432	ND<373	150 J	729	158 J	4,270	NA	NA							

**Table 3**  
**Summary of Detected Compounds Groundwater**  
**Collected June 26, 2006**  
**Mickey Stevens Sports Complex**  
**Sandy Lane**  
**Warwick, Rhode Island**

**City of Warwick**  
**Site Investigation Report**  
**July 2006**

Sample #	-43	-44	-45	-46	-47	Regulatory Criteria	
Date	6/26/06	6/26/06	6/26/06	6/26/06	6/26/06		
Time	10:00	11:00	12:05	13:50	13:55		
Location	MW-100	MW-300	MW-500	MW-200	MW-400		
<b>GB-GO</b>							
<b><i>Dissolved Metals via Method 3005A/6000/7000</i></b>							
<b>Thallium</b>	mg/L	ND<0.0020	ND<0.0020	0.0151	ND<0.0020	ND<0.0020	NE
<b>Zinc</b>	mg/L	0.085	0.054	0.054	ND<0.050	0.129	NE
<b><i>VOC via Method 8260B</i></b>							
<b>cis-1,2-Dichloroethene</b>	µg/L	ND<1.0	ND<1.0	ND<1.0	1.8	ND<1.0	2,400
<b>Methyl tert-Butyl Ether</b>	µg/L	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.7	5,000
<b>Trichloroethene</b>	µg/L	5.2	ND<1.0	1.4	ND<1.0	ND<1.0	540
<b>Vinyl Chloride</b>	µg/L	ND<1.0	ND<1.0	ND<1.0	3.0	ND<1.0	NE
<b><i>TPH via Method 8100M</i></b>							
<b>TPH</b>	mg/L	ND<0.20	0.25	0.42	0.50	ND<0.20	NE

Notes: Only the last two digits of the sample number are listed

MW = Monitoring Well

VOC = Volatile organic compounds

TPH = Total petroleum hydrocarbons

Bold, shaded, and underlined values exceed one or more of the applicable RIDEM regulatory criteria

GB-GO = GB Groundwater Objective

mg/L = milligrams per liter

µg/L = micrograms per liter

ND<# = Not detected above the laboratory reporting limit

NE = Not established

Prepared by: ECS

Reviewed by: KM



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# Appendix A: Limitations

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## Limitations



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Sandy Lane  
Warwick, Rhode Island

- This report has been prepared for the sole and exclusive use of the Client. It is subject to and issued in connection with the Agreement and the provisions thereof. Any use or reliance upon information provided in this report, without the specific written authorization of the Client and VHB, shall be at the User's sole risk.
- In conducting this assessment, VHB has obtained and relied upon information from multiple sources to form certain conclusions regarding potential environmental issues at and in the vicinity of the subject property. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information.
- The objectives of the assessment described in this report were to assess the physical characteristics of the subject property with respect to overt evidence of past or present use, storage, and/or disposal of oil or hazardous materials, as defined in applicable state and federal environmental laws and regulations, and to gather information regarding current and past operations and environmental conditions at and in the vicinity of the subject property.
- Where access was denied or conditions obscured, VHB makes no report on such areas.
- No attempt has been made to assess the compliance status of any past or present Owner or Operator of the Site with any federal, state, or local laws or regulations.
- The findings, observations, and conclusions presented in this report are limited by the scope of services outlined in our Agreement, which reflects schedule and budgetary constraints imposed, by the Client for the current phase of environmental assessment. Furthermore, the assessment has been performed in accordance with generally accepted engineering practices and standards set forth in ASTM E 1527-00. No other warranty, expressed or implied, is made.
- The assessment presented in this report is based solely upon information gathered to date. Should further environmental or other relevant information be developed at a later date, Client should bring the information to the attention of VHB as soon as possible. Based upon an evaluation, VHB may modify the report and its conclusions.

- The EDR Environmental Data Resources Inc. (EDR) Radius Map with GeoCheck was conducted under the Notice of Disclaimer/Waiver of Liability included in the summary report.



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# Appendix B: Municipal Documentation



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# Appendix C: Field Card



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# Appendix D: Environmental Data Resources, Inc. Report



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# Appendix E: RIDEM Documentation



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# Appendix F: Site Photographs

**Site Photographs  
Mickey Stevens Sports Complex  
Site Investigation Report**



Photo 1: Solid Waste from Test Pit 1.



Photo 2: View of baseball fields looking northwest.



Photo 3: View of RYDER Transportation on-Site.



Photo 4: View of baseball fields looking north.



Photo 5: View of baseball fields looking northwest.



Photo 6: View of baseball fields looking north.



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# Appendix G: Test Pit Logs

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist.: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-01  
 Dimen. (LxWxD): 7ft. x3ft. x5ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	0-2	loam, F-M sand and silt, 5YR 4/3, dry	E		0.9 ppm
	2-4	same as above, F-M sand and silt, debris mixed w/in soil (cans, metal, plastic) dry, some concrete boulders Garbage starts at ~ 6 inches chemistry flask	E		
	4-6	same, more refuse at bottom	E		0.5 ppm
	6-8				
	8-10				
	10-12				
	12-14				
	14-16				
	16-18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**

E = Easy  
 M = Moderate  
 D = Difficult



Groundwater @ ft.

Playing Field C outfield

sample -01 from TP-01 at 0-2"


~~sample -02 from TP-01 at 2'-1'~~

sample -02 from TP-01 at 0.5-2'

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-02  
 Dimen. (LxWxD): 7ft. x 3 ft. x 5ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe


Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	2	F-M Sand, some gravel, 7.5 YR 4/2, dry may be some ash mixed in	E		0.9 ppm
	4	Ash layer, 7.5 YR 7/2, dry	E		
	6	Solid waste at bottom of hole (kiddie pool, metal cans, glass, plastic)			
	8				
	10				
	12				
	14				
	16				
	18				

<p><b>Legend</b>          F = Fine M = Medium C = Coarse          F/M = Fine to Medium F/C = Fine to Coarse          V. = Very Lt. = Light Dk. = Dark          Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange          U.S.C. Code = Unified Soil Classification</p>	<p>Trace (Tr.) 0-10%          Little (Li.) 10-20%          Some (So.) 20-35%          And (&amp;) 35-50%</p>	<p><b>Excavation Effort:</b>          E = Easy          M = Moderate          D = Difficult</p>	<p>          Groundwater @ _____ ft.</p>
--	--	---	---

Adjacent to basketball/tennis courts  
 -03 TP-02 0-6"

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-03  
 Dimen. (LxWxD): 7 ft. x 7 ft. x 4 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	2	Retuse immediately w/ 1st scoop (glass, plastic, ceramic, metal) F-M sand and silt 54R <sup>3</sup> /3, dry and gravel	E		
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				
<b>Legend</b> F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification			Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	<b>Excavation Effort:</b> E = Easy M = Moderate D = Difficult	 Groundwater @ ft.

Adjacent to Baseball Diamond C  
 -04 from TP-03 0-6"



Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist.: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP- 04  
 Dimen. (LxWxD): 6 ft. x 3 ft. x 2 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	2	F sand, some M sand, Brown Refuse (metal cans, plastic tubes, glass, wood) ↓			0.5 ppm
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**  
 E = Easy  
 M = Moderate  
 D = Difficult

  
 Groundwater @ \_\_\_\_\_ ft.

- 0.5 ppm TP-04 0-2"

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist.: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP- 05  
 Dimen. (LxWxD): 7 ft. x 3 ft. x 4 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	0-2"	loam			D. loam strong garbage odor
	2	F-M sand, some silt, 7.5 TB s/lb, dry			
		F-M sand, some silt, different color, 6/100.			
	4	Garbage at 4'			
	6				
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**

E = Easy  
 M = Moderate  
 D = Difficult




Groundwater @ ft.

-06 from TP-05 0-6"  
 -07 from TP-05 6"-2'

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-0<sup>w</sup>  
 Dimen. (LxWxD): 7 ft. x 3 ft. x 6 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
		Natural, no fill, crushed 55 gallon drum on top of area			
	2	C-M sand, trace silt, trace gravel, dry, medium brown			
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				

<b>Legend</b> F = Fine M = Medium C = Coarse F/M = Fine to Medium F/C = Fine to Coarse V. = Very Lt. = Light Dk. = Dark Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange U.S.C. Code = Unified Soil Classification	Trace (Tr.) 0-10% Little (Li.) 10-20% Some (So.) 20-35% And (&) 35-50%	<b>Excavation Effort:</b> E = Easy M = Moderate D = Difficult	 Groundwater @ _____ ft.
---	---	--	--

08 10-06 0-6"

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-07 and -08 and -09 same log  
 Dimen. (LxWxD): 8 ft. x 3 ft. x 1/2 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	2	M sand, very well sorted, native, no odors, T, S, R 7/4			ND
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**  
 E = Easy  
 M = Moderate  
 D = Difficult



Groundwater @ ft.

-09 0-6"  
 -10 from TP-08 0-6"  
 -11 from TP-09 0-6"

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-16  
 Dimen. (LxWxD): 6 ft. x 3 ft. x 3 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	0	Top loam			
	2	sand and gravel, 5 FR 6/3, dm			ND
	4				
	6	<del>Refuse</del> Refuse (plastic, metal, wood)			
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**

E = Easy  
 M = Moderate  
 D = Difficult



Groundwater @ ft.

-12 TP-10 1305 0-6"  
 -13 TP-10 1310 6"-1'

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist.: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP- 11  
 Dimen.(LxWxD): 6 ft. x 3 ft. x 4 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	2	F-M sand, some gravel, dm 2 5/8 6 1/3			ND
	4	Garbage - (fabric, metal, plastic)			
	6				
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**

E = Easy  
 M = Moderate  
 D = Difficult



Groundwater @ ft.

-14 from 0-6"

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist.: E. Scursso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP- 12  
 Dimen.(LxWxD): 6 ft. x 3ft. x3ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	0	loam - grass			
	2	F-M sand, some silt, trace gravel, 7.5 TR 4/3 dry	E		ND
	4	- gas base at 2.5' glass, metal, bricks, ceramic	E		
	6				
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt. = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**

E = Easy  
 M = Moderate  
 D = Difficult



Groundwater @ ft.

-15 from 0-10" 12/15

Date: 5/30/2006  
 Client: City of Warwick  
 Location: Mickey Stevens Sports Complex  
Warwick, RI  
 VHB Geologist: E. Scurso  
 Contractor: Warwick DPW

Job Number: 71915  
 Test Pit No.: TP-13  
 Dimen. (LxWxD): 7 ft. x 3 ft. x 5 ft.  
 Grd. Elev.: \_\_\_\_\_  
 Weather: Sunny 70s  
 Equipment: Backhoe

Sample #	Depth	Soil Description	Excav. Effort	Boulder Size	Remarks
	2	loam and F-M sand, trace gravel 57R 1/2, dmi sampled Ash sampled same before ash			
	4				
	6	Garbage (metal, plastic, bricks)			
	8				
	10				
	12				
	14				
	16				
	18				

**Legend**

F = Fine M = Medium C = Coarse  
 F/M = Fine to Medium F/C = Fine to Coarse  
 V. = Very Lt = Light Dk. = Dark  
 Gr. = Gray Br. = Brown Yel. = Yellow Org. = Orange  
 U.S.C. Code = Unified Soil Classification

Trace (Tr.) 0-10%  
 Little (Li.) 10-20%  
 Some (So.) 20-35%  
 And (&) 35-50%

**Excavation Effort:**

E = Easy  
 M = Moderate  
 D = Difficult



Groundwater @ ft.

-1.6 from 0-6" 1400  
 -1.7 from 6"-1' 1405



3027-01-10

Location Warwick, RIDate 5/30/06Project / Client Mickey Stevens Sports ComplexSandy Lane - Test PitsDate: 5/30/06Job: Mickey Stevens Test PitsJob #: 71915.00Weather: Sunny 70s/80s0645: Arrive at VHB, load truck0737: Arrive at site, meet Dave (City of Warwick),  
Scotty (laborer) and Bobby (excavator operator)

Today we are completing test pits across  
playing fields to determine landfill cap thickness  
and to take samples of the cap.

We completed 13 Test Pits, ECS took photos  
of the test pits

3027-01-17

17

Location Warwick, RIDate 5/30/06Project / Client Mickey Stevens Sports ComplexSandy Lane - Test Pits

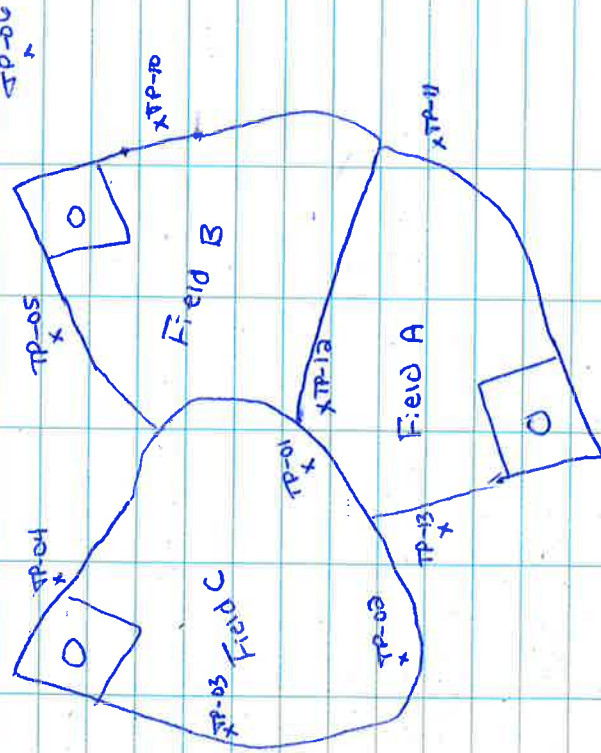
Sample #	Location	depth	time
3027000530-01	TP-01	0-6"	0830
-02	TP-01	0.5-2'	0850
-03	TP-02	0-6"	0930
-04	TP-03	0-6"	1000
-05	TP-04	0-6"	1020
-06	TP-05	0-6"	1045
-07	TP-05	0.5-2'	1100
-08	TP-06	0-6"	1115
-09	TP-07	0-6"	1145
-10	TP-08	0-6"	1150
-11	TP-09	0-6"	1205
-12	TP-10	0-6"	1305
-13	TP-10	0.5-1'	1310
-14	TP-11	0-6"	1320
-15	TP-12	0-6"	1345
-16	TP-13	0-6"	1400
-17	TP-13	0.5-1'	1405
-18	Trip Blank		1500

3027-01-18

18

Location Warwick, RI Date 5/30/06

Project / Client Hickey Stevens Sports Complex  
Sandy Lane - Test Pits



3027-01-19

19

Location Warwick, RI Date 5/30/06

Project / Client Hickey Stevens Sports Complex  
Sandy Lane - Test Pits

Test Pit	Depth to Garbage
TP-01	~6 inches
TP-02	~5 feet but ash at (inches)
TP-03	~6 inches
TP-04	~1 foot
TP-05	~4 feet
TP-06	Not observed
TP-07	Not observed
TP-08	Not observed
TP-09	Not observed
TP-10	~5 feet
TP-11	~3.5 feet
TP-12	~2.5 feet
TP-13	~5 feet but ash at ~2 feet

1428: Left site  
1300: Arrive @ VHB



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# Appendix H: Boring Logs



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# Appendix I: Laboratory Data

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.5	6010B	1	SVD	05/31/06	1.82	100
Arsenic	2.6	mg/kg dry	1.6	7060A	5	SVD	06/03/06	1.82	100
Beryllium	0.39	mg/kg dry	0.07	6010B	1	SVD	05/31/06	1.82	100
Cadmium	ND	mg/kg dry	0.65	6010B	1	SVD	05/31/06	1.82	100
Chromium	7.5	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.82	100
Copper	10.2	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.82	100
Lead	20.9	mg/kg dry	6.5	6010B	1	SVD	05/31/06	1.82	100
Mercury	ND	mg/kg dry	0.038	7471A	1	EEM	06/01/06	0.63	40
Nickel	4.2	mg/kg dry	3.3	6010B	1	SVD	05/31/06	1.82	100
Selenium	ND	mg/kg dry	6.5	6010B	1	SVD	05/31/06	1.82	100
Silver	ND	mg/kg dry	0.65	6010B	1	SVD	05/31/06	1.82	100
Thallium	ND	mg/kg dry	1.6	7841	5	JP	06/01/06	1.82	100
Zinc	46.5	mg/kg dry	3.3	6010B	1	SVD	05/31/06	1.82	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 14.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	145	92.6000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	72.4	60.8000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	72.4	26.0000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	72.4	72.4000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	362	290.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	72.4	26.0000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	7240	6960.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	145	66.6000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1810	590.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	724	144.8000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	724	182.4000	1	05/31/06
Acetone	ND	ug/Kg dry	1810	1230.0000	1	05/31/06
Benzene	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	72.4	43.4000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
Bromoform	ND	ug/Kg dry	72.4	31.8000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 14.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	145	29.0000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Chloroethane	ND	ug/Kg dry	145	86.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Chloromethane	ND	ug/Kg dry	145	43.4000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	72.4	23.2000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	72.4	63.8000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	362	55.0000	1	05/31/06
Naphthalene	ND	ug/Kg dry	72.4	23.2000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	72.4	29.0000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
Styrene	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	72.4	40.6000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	362	290.0000	1	05/31/06
Toluene	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	72.4	46.4000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	72.4	34.8000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	72.4	31.8000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	72.4	37.6000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	362	55.0000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	72.4	34.8000	1	05/31/06

# ESS Laboratory

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Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 14.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	72.4	26.0000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	145	69.6000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	217			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	95 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	101 %		70-130
Surrogate: Toluene-d8	96 %		70-130



# ESS Laboratory

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Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.95	1	06/05/06
4,4'-DDE	8.15	ug/Kg dry	5.95	1	06/05/06
4,4'-DDT	15.7	ug/Kg dry	5.95	1	06/05/06
Aldrin	ND	ug/Kg dry	5.95	1	06/05/06
alpha-BHC	ND	ug/Kg dry	5.95	1	06/05/06
alpha-Chlordane	ND	ug/Kg dry	5.95	1	06/05/06
beta-BHC	ND	ug/Kg dry	5.95	1	06/05/06
Chlordane (Total)	ND	ug/Kg dry	59.5	1	06/05/06
delta-BHC	ND	ug/Kg dry	5.95	1	06/05/06
Dieldrin	ND	ug/Kg dry	5.95	1	06/05/06
Endosulfan I	ND	ug/Kg dry	5.95	1	06/05/06
Endosulfan II	ND	ug/Kg dry	5.95	1	06/05/06
Endosulfan Sulfate	ND	ug/Kg dry	5.95	1	06/05/06
Endrin	ND	ug/Kg dry	5.95	1	06/05/06
Endrin Aldehyde	ND	ug/Kg dry	5.95	1	06/05/06
Endrin Ketone	ND	ug/Kg dry	5.95	1	06/05/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.95	1	06/05/06
gamma-Chlordane	ND	ug/Kg dry	5.95	1	06/05/06
Heptachlor	ND	ug/Kg dry	5.95	1	06/05/06
Heptachlor Epoxide	ND	ug/Kg dry	5.95	1	06/05/06
Hexachlorobenzene	ND	ug/Kg dry	5.95	1	06/05/06
Methoxychlor	ND	ug/Kg dry	5.95	1	06/05/06
Toxaphene	ND	ug/Kg dry	298	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	91 %		30-150
Surrogate: Decachlorobiphenyl [2C]	85 %		30-150
Surrogate: Tetrachloro-m-xylene	83 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	82 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
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Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	59.5	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	59.5	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	83 %		30-150
Surrogate: Decachlorobiphenyl [2C]	101 %		30-150
Surrogate: Tetrachloro-m-xylene	80 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	83 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	30.2	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	66 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 30  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	396	40.4000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	396	52.0000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	396	44.8000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	396	47.2000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	396	44.6000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1990	54.8000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	396	73.8000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	396	41.4000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	396	46.4000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	396	33.4000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1990	462.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	396	59.6000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	396	41.4000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	396	42.8000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	396	53.0000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	396	39.2000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	396	28.6000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	396	51.6000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	396	42.6000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	794	53.0000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	794	37.2000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	396	50.0000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1990	48.6000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	396	60.8000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	396	53.6000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	794	272.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	396	45.4000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	396	52.8000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1990	436.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	396	58.4000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	396	38.4000	1	06/07/06
Acetophenone	ND	ug/Kg dry	794	510.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1990	57.2000	1	06/07/06
Anthracene	ND	ug/Kg dry	396	45.0000	1	06/07/06
Azobenzene	ND	ug/Kg dry	396	83.0000	1	06/07/06

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 30  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	81.3	ug/Kg dry	396	40.8000	1	06/07/06
Benzo(a)pyrene	J	93.3	ug/Kg dry	199	42.2000	1	06/07/06
Benzo(b)fluoranthene	J	250	ug/Kg dry	396	73.4000	1	06/07/06
Benzo(g,h,i)perylene	J	49.6	ug/Kg dry	396	46.4000	1	06/07/06
Benzo(k)fluoranthene		ND	ug/Kg dry	396	69.2000	1	06/07/06
Benzoic Acid		ND	ug/Kg dry	1990	502.0000	1	06/07/06
Benzyl Alcohol		ND	ug/Kg dry	396	47.4000	1	06/07/06
bis(2-Chloroethoxy)methane		ND	ug/Kg dry	396	33.4000	1	06/07/06
bis(2-Chloroethyl)ether		ND	ug/Kg dry	396	62.6000	1	06/07/06
bis(2-chloroisopropyl)Ether		ND	ug/Kg dry	396	44.8000	1	06/07/06
bis(2-Ethylhexyl)phthalate	J	86.1	ug/Kg dry	396	52.4000	1	06/07/06
Butylbenzylphthalate		ND	ug/Kg dry	396	41.4000	1	06/07/06
Carbazole		ND	ug/Kg dry	396	52.0000	1	06/07/06
Chrysene	J	92.5	ug/Kg dry	199	49.8000	1	06/07/06
Dibenzo(a,h)Anthracene		ND	ug/Kg dry	199	48.8000	1	06/07/06
Dibenzofuran		ND	ug/Kg dry	396	44.0000	1	06/07/06
Diethylphthalate		ND	ug/Kg dry	396	57.6000	1	06/07/06
Dimethylphthalate		ND	ug/Kg dry	396	54.8000	1	06/07/06
Di-n-butylphthalate		ND	ug/Kg dry	396	49.2000	1	06/07/06
Di-n-octylphthalate		ND	ug/Kg dry	396	54.0000	1	06/07/06
Fluoranthene	J	195	ug/Kg dry	396	47.6000	1	06/07/06
Fluorene		ND	ug/Kg dry	396	37.8000	1	06/07/06
Hexachlorobenzene		ND	ug/Kg dry	396	56.0000	1	06/07/06
Hexachlorobutadiene		ND	ug/Kg dry	396	73.0000	1	06/07/06
Hexachlorocyclopentadiene		ND	ug/Kg dry	1990	226.0000	1	06/07/06
Hexachloroethane		ND	ug/Kg dry	396	44.8000	1	06/07/06
Indeno(1,2,3-cd)Pyrene		ND	ug/Kg dry	396	57.2000	1	06/07/06
Isophorone		ND	ug/Kg dry	396	33.4000	1	06/07/06
Naphthalene		ND	ug/Kg dry	396	39.8000	1	06/07/06
Nitrobenzene		ND	ug/Kg dry	396	51.4000	1	06/07/06
N-Nitrosodimethylamine		ND	ug/Kg dry	396	67.2000	1	06/07/06
N-Nitroso-Di-n-Propylamine		ND	ug/Kg dry	396	49.0000	1	06/07/06
N-nitrosodiphenylamine		ND	ug/Kg dry	396	42.4000	1	06/07/06
Pentachlorophenol		ND	ug/Kg dry	1990	408.0000	1	06/07/06
Phenanthrene	J	64.7	ug/Kg dry	396	54.6000	1	06/07/06
Phenol		ND	ug/Kg dry	396	40.4000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-01 TP-01/0-6"  
Date Sampled: 05/30/06 08:30  
Percent Solids: 84  
Initial Volume: 30  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-01  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	118	ug/Kg dry	396	37.0000	1	06/07/06
Pyridine		ND	ug/Kg dry	1990	89.6000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	57 %		30-130
Surrogate: 2,4,6-Tribromophenol	59 %		30-130
Surrogate: 2-Chlorophenol-d4	52 %		30-130
Surrogate: 2-Fluorobiphenyl	64 %		30-130
Surrogate: 2-Fluorophenol	52 %		30-130
Surrogate: Nitrobenzene-d5	60 %		30-130
Surrogate: Phenol-d6	52 %		30-130
Surrogate: p-Terphenyl-d14	55 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-02 TP-01/0.5-2'  
Date Sampled: 05/30/06 08:50  
Percent Solids: 94

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.0	6010B	1	SVD	05/31/06	1.77	100
Arsenic	2.1	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.77	100
Beryllium	0.42	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.77	100
Cadmium	0.95	mg/kg dry	0.60	6010B	1	SVD	05/31/06	1.77	100
Chromium	17.8	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.77	100
Copper	28.6	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.77	100
Lead	72.1	mg/kg dry	6.0	6010B	1	SVD	05/31/06	1.77	100
Mercury	0.085	mg/kg dry	0.034	7471A	1	EEM	06/01/06	0.63	40
Nickel	6.5	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.77	100
Selenium	ND	mg/kg dry	6.0	6010B	1	SVD	05/31/06	1.77	100
Silver	ND	mg/kg dry	0.60	6010B	1	SVD	05/31/06	1.77	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.77	100
Zinc	112	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.77	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-02 TP-01/0.5-2'  
Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	90.8	58.2000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	45.4	21.8000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	45.4	25.4000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	45.4	38.2000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	45.4	25.4000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	45.4	20.0000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	45.4	16.4000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	45.4	20.0000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	45.4	45.4000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	45.4	18.2000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	45.4	20.0000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	227	181.6000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	45.4	18.2000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	45.4	18.2000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	45.4	21.8000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	45.4	25.4000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	45.4	23.6000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	45.4	20.0000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	45.4	16.4000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	45.4	23.6000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	4540	4360.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	45.4	21.8000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	90.8	41.8000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1140	370.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	45.4	25.4000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	454	90.8000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	45.4	21.8000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	45.4	21.8000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	454	114.4000	1	05/31/06
Acetone	ND	ug/Kg dry	1140	772.0000	1	05/31/06
Benzene	ND	ug/Kg dry	45.4	25.4000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	45.4	18.2000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	45.4	27.2000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	45.4	23.6000	1	05/31/06
Bromoform	ND	ug/Kg dry	45.4	20.0000	1	05/31/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-02 TP-01/0.5-2'  
Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	J	28.2	ug/Kg dry	90.8	18.2000	1	05/31/06
Carbon Disulfide		ND	ug/Kg dry	45.4	21.8000	1	05/31/06
Carbon Tetrachloride		ND	ug/Kg dry	45.4	23.6000	1	05/31/06
Chlorobenzene		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Chloroethane		ND	ug/Kg dry	90.8	54.4000	1	05/31/06
Chloroform		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Chloromethane		ND	ug/Kg dry	90.8	27.2000	1	05/31/06
cis-1,2-Dichloroethene		ND	ug/Kg dry	45.4	25.4000	1	05/31/06
cis-1,3-Dichloropropene		ND	ug/Kg dry	45.4	18.2000	1	05/31/06
Dibromochloromethane		ND	ug/Kg dry	45.4	14.6000	1	05/31/06
Dibromomethane		ND	ug/Kg dry	45.4	23.6000	1	05/31/06
Dichlorodifluoromethane		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Diethyl Ether		ND	ug/Kg dry	45.4	25.4000	1	05/31/06
Di-isopropyl ether		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Ethyl tertiary-butyl ether		ND	ug/Kg dry	45.4	18.2000	1	05/31/06
Ethylbenzene		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Hexachlorobutadiene		ND	ug/Kg dry	45.4	40.0000	1	05/31/06
Isopropylbenzene		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Methyl tert-Butyl Ether		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Methylene Chloride		ND	ug/Kg dry	227	34.6000	1	05/31/06
Naphthalene		ND	ug/Kg dry	45.4	14.6000	1	05/31/06
n-Butylbenzene		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
n-Propylbenzene		ND	ug/Kg dry	45.4	18.2000	1	05/31/06
sec-Butylbenzene		ND	ug/Kg dry	45.4	21.8000	1	05/31/06
Styrene		ND	ug/Kg dry	45.4	21.8000	1	05/31/06
tert-Butylbenzene		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Tertiary-amyl methyl ether		ND	ug/Kg dry	45.4	25.4000	1	05/31/06
Tetrachloroethene		ND	ug/Kg dry	45.4	21.8000	1	05/31/06
Tetrahydrofuran		ND	ug/Kg dry	227	181.6000	1	05/31/06
Toluene		ND	ug/Kg dry	45.4	23.6000	1	05/31/06
trans-1,2-Dichloroethene		ND	ug/Kg dry	45.4	29.0000	1	05/31/06
trans-1,3-Dichloropropene		ND	ug/Kg dry	45.4	21.8000	1	05/31/06
Trichloroethene		ND	ug/Kg dry	45.4	20.0000	1	05/31/06
Trichlorofluoromethane		ND	ug/Kg dry	45.4	23.6000	1	05/31/06
Vinyl Acetate		ND	ug/Kg dry	227	34.6000	1	05/31/06
Vinyl Chloride		ND	ug/Kg dry	45.4	21.8000	1	05/31/06

# ESS Laboratory

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Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	45.4	16.4000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	90.8	43.6000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	136			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	102 %		70-130
Surrogate: Toluene-d8	96 %		70-130

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Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	9.63	ug/Kg dry	5.32	1	06/05/06
4,4'-DDE	16.5	ug/Kg dry	5.32	1	06/05/06
4,4'-DDT	59.1	ug/Kg dry	26.6	5	06/05/06
Aldrin	ND	ug/Kg dry	5.32	1	06/05/06
alpha-BHC	ND	ug/Kg dry	5.32	1	06/05/06
alpha-Chlordane	P. 27.1	ug/Kg dry	5.32	1	06/05/06
beta-BHC	ND	ug/Kg dry	5.32	1	06/05/06
Chlordane (Total)	79.9	ug/Kg dry	53.2	1	06/05/06
delta-BHC	ND	ug/Kg dry	5.32	1	06/05/06
Dieldrin	ND	ug/Kg dry	5.32	1	06/05/06
Endosulfan I	ND	ug/Kg dry	5.32	1	06/05/06
Endosulfan II	ND	ug/Kg dry	5.32	1	06/05/06
Endosulfan Sulfate	ND	ug/Kg dry	5.32	1	06/05/06
Endrin	ND	ug/Kg dry	5.32	1	06/05/06
Endrin Aldehyde	ND	ug/Kg dry	5.32	1	06/05/06
Endrin Ketone	ND	ug/Kg dry	5.32	1	06/05/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.32	1	06/05/06
gamma-Chlordane	18.1	ug/Kg dry	5.32	1	06/05/06
Heptachlor	ND	ug/Kg dry	5.32	1	06/05/06
Heptachlor Epoxide	ND	ug/Kg dry	5.32	1	06/05/06
Hexachlorobenzene	ND	ug/Kg dry	5.32	1	06/05/06
Methoxychlor	ND	ug/Kg dry	5.32	1	06/05/06
Toxaphene	ND	ug/Kg dry	266	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	82 %		30-150
Surrogate: Decachlorobiphenyl [2C]	83 %		30-150
Surrogate: Tetrachloro-m-xylene	82 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	79 %		30-150

# ESS Laboratory

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Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	53.1	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	53.1	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	74 %		30-150
Surrogate: Decachlorobiphenyl [2C]	82 %		30-150
Surrogate: Tetrachloro-m-xylene	82 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	89 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-02 TP-01/0.5-2'  
Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	39.9	mg/kg dry	27.0	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	96 %		40-140

# ESS Laboratory

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Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 30.9  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	344	35.2000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	344	45.0000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	344	38.8000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	344	41.0000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	344	38.6000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1720	47.6000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	344	64.0000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	344	36.0000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	344	40.2000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	344	29.0000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1720	400.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	344	51.6000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	344	36.0000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	344	37.2000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	344	46.0000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	344	34.0000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	344	24.8000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	344	44.8000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	344	37.0000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	689	46.0000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	689	32.2000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	344	43.4000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1720	42.2000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	344	52.6000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	344	46.4000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	689	236.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	344	39.4000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	344	45.8000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1720	378.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	344	50.6000	1	06/07/06
<b>Acenaphthylene</b>	J <b>55.8</b>	ug/Kg dry	344	33.2000	1	06/07/06
Acetophenone	ND	ug/Kg dry	689	444.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1720	49.6000	1	06/07/06
<b>Anthracene</b>	J <b>85.0</b>	ug/Kg dry	344	39.0000	1	06/07/06
Azobenzene	ND	ug/Kg dry	344	72.0000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-02 TP-01/0.5-2'  
Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 30.9  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	437	ug/Kg dry	344	35.4000	1	06/07/06
Benzo(a)pyrene	441	ug/Kg dry	172	36.6000	1	06/07/06
Benzo(b)fluoranthene	540	ug/Kg dry	344	63.6000	1	06/07/06
Benzo(g,h,i)perylene	J 225	ug/Kg dry	344	40.2000	1	06/07/06
Benzo(k)fluoranthene	367	ug/Kg dry	344	60.2000	1	06/07/06
Benzoic Acid	ND	ug/Kg dry	1720	436.0000	1	06/07/06
Benzyl Alcohol	ND	ug/Kg dry	344	41.2000	1	06/07/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	344	29.0000	1	06/07/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	344	54.4000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	344	38.8000	1	06/07/06
bis(2-Ethylhexyl)phthalate	J 83.3	ug/Kg dry	344	45.4000	1	06/07/06
Butylbenzylphthalate	ND	ug/Kg dry	344	36.0000	1	06/07/06
Carbazole	ND	ug/Kg dry	344	45.0000	1	06/07/06
Chrysene	468	ug/Kg dry	172	43.2000	1	06/07/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	172	42.4000	1	06/07/06
Dibenzofuran	ND	ug/Kg dry	344	38.2000	1	06/07/06
Diethylphthalate	ND	ug/Kg dry	344	50.0000	1	06/07/06
Dimethylphthalate	ND	ug/Kg dry	344	47.6000	1	06/07/06
Di-n-butylphthalate	ND	ug/Kg dry	344	42.8000	1	06/07/06
Di-n-octylphthalate	ND	ug/Kg dry	344	46.8000	1	06/07/06
Fluoranthene	982	ug/Kg dry	344	41.4000	1	06/07/06
Fluorene	ND	ug/Kg dry	344	32.8000	1	06/07/06
Hexachlorobenzene	ND	ug/Kg dry	344	48.6000	1	06/07/06
Hexachlorobutadiene	ND	ug/Kg dry	344	63.4000	1	06/07/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1720	196.4000	1	06/07/06
Hexachloroethane	ND	ug/Kg dry	344	38.8000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	J 227	ug/Kg dry	344	49.6000	1	06/07/06
Isophorone	ND	ug/Kg dry	344	29.0000	1	06/07/06
Naphthalene	ND	ug/Kg dry	344	34.4000	1	06/07/06
Nitrobenzene	ND	ug/Kg dry	344	44.6000	1	06/07/06
N-Nitrosodimethylamine	ND	ug/Kg dry	344	58.2000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	344	42.6000	1	06/07/06
N-nitrosodiphenylamine	ND	ug/Kg dry	344	36.8000	1	06/07/06
Pentachlorophenol	ND	ug/Kg dry	1720	354.0000	1	06/07/06
Phenanthrene	344	ug/Kg dry	344	47.4000	1	06/07/06
Phenol	ND	ug/Kg dry	344	35.2000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-02 TP-01/0.5-2'  
Date Sampled: 05/30/06 08:50  
Percent Solids: 94  
Initial Volume: 30.9  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-02  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	707	ug/Kg dry	344	32.0000	1	06/07/06
Pyridine	ND	ug/Kg dry	1720	77.6000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	74 %		30-130
Surrogate: 2,4,6-Tribromophenol	78 %		30-130
Surrogate: 2-Chlorophenol-d4	68 %		30-130
Surrogate: 2-Fluorobiphenyl	88 %		30-130
Surrogate: 2-Fluorophenol	69 %		30-130
Surrogate: Nitrobenzene-d5	81 %		30-130
Surrogate: Phenol-d6	69 %		30-130
Surrogate: p-Terphenyl-d14	74 %		30-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.82	100
Arsenic	2.2	mg/kg dry	1.6	7060A	5	SVD	06/03/06	1.82	100
Beryllium	0.45	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.82	100
Cadmium	ND	mg/kg dry	0.62	6010B	1	SVD	05/31/06	1.82	100
Chromium	5.4	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.82	100
Copper	48.2	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.82	100
Lead	23.7	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.82	100
Mercury	ND	mg/kg dry	0.038	7471A	1	EEM	06/01/06	0.6	40
Nickel	3.3	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.82	100
Selenium	ND	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.82	100
Silver	ND	mg/kg dry	0.62	6010B	1	SVD	05/31/06	1.82	100
Thallium	ND	mg/kg dry	1.6	7841	5	JP	06/01/06	1.82	100
Zinc	59.7	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.82	100

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 20.6  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	96.4	61.6000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	48.2	40.4000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	48.2	17.4000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	48.2	48.2000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	241	192.8000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	48.2	17.4000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	4820	4620.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	96.4	44.4000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1200	394.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	482	96.4000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	482	121.4000	1	05/31/06
Acetone	ND	ug/Kg dry	1200	820.0000	1	05/31/06
Benzene	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	48.2	29.0000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
Bromoform	ND	ug/Kg dry	48.2	21.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 20.6  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	96.4	19.2000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Chloroethane	ND	ug/Kg dry	96.4	57.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Chloromethane	ND	ug/Kg dry	96.4	29.0000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	48.2	15.4000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	48.2	42.4000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	241	36.6000	1	05/31/06
Naphthalene	ND	ug/Kg dry	48.2	15.4000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	48.2	19.2000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
Styrene	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	48.2	27.0000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	241	192.8000	1	05/31/06
Toluene	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	48.2	30.8000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	48.2	23.2000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	48.2	21.2000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	48.2	25.0000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	241	36.6000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	48.2	23.2000	1	05/31/06

# ESS Laboratory

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Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 20.6  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	48.2	17.4000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	96.4	46.2000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	145			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	99 %		70-130
Surrogate: 4-Bromofluorobenzene	98 %		70-130
Surrogate: Dibromofluoromethane	107 %		70-130
Surrogate: Toluene-d8	102 %		70-130

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Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.68	1	06/04/06
4,4'-DDE	ND	ug/Kg dry	5.68	1	06/04/06
4,4'-DDT	ND	ug/Kg dry	5.68	1	06/04/06
Aldrin	ND	ug/Kg dry	5.68	1	06/04/06
alpha-BHC	ND	ug/Kg dry	5.68	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	5.68	1	06/04/06
beta-BHC	ND	ug/Kg dry	5.68	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	56.8	1	06/04/06
delta-BHC	ND	ug/Kg dry	5.68	1	06/04/06
Dieldrin	ND	ug/Kg dry	5.68	1	06/04/06
Endosulfan I	ND	ug/Kg dry	5.68	1	06/04/06
Endosulfan II	ND	ug/Kg dry	5.68	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	5.68	1	06/04/06
Endrin	ND	ug/Kg dry	5.68	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	5.68	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	5.68	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.68	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	5.68	1	06/04/06
Heptachlor	ND	ug/Kg dry	5.68	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	5.68	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	5.68	1	06/04/06
Methoxychlor	ND	ug/Kg dry	5.68	1	06/04/06
Toxaphene	ND	ug/Kg dry	284	1	06/04/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	72 %		30-150
Surrogate: Decachlorobiphenyl [2C]	64 %		30-150
Surrogate: Tetrachloro-m-xylene	65 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	69 %		30-150

# ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.  
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Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	56.8	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	56.8	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	81 %		30-150
Surrogate: Decachlorobiphenyl [2C]	91 %		30-150
Surrogate: Tetrachloro-m-xylene	79 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	81 %		30-150

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 29.7  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	28.7	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	69 %		40-140

# ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 29.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	390	39.8000	1	06/08/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	390	51.0000	1	06/08/06
1,2-Dichlorobenzene	ND	ug/Kg dry	390	44.0000	1	06/08/06
1,3-Dichlorobenzene	ND	ug/Kg dry	390	46.4000	1	06/08/06
1,4-Dichlorobenzene	ND	ug/Kg dry	390	43.8000	1	06/08/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1960	53.8000	1	06/08/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	390	72.6000	1	06/08/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	390	40.8000	1	06/08/06
2,4-Dichlorophenol	ND	ug/Kg dry	390	45.6000	1	06/08/06
2,4-Dimethylphenol	ND	ug/Kg dry	390	32.8000	1	06/08/06
2,4-Dinitrophenol	ND	ug/Kg dry	1960	454.0000	1	06/08/06
2,4-Dinitrotoluene	ND	ug/Kg dry	390	58.6000	1	06/08/06
2,6-Dinitrotoluene	ND	ug/Kg dry	390	40.8000	1	06/08/06
2-Chloronaphthalene	ND	ug/Kg dry	390	42.2000	1	06/08/06
2-Chlorophenol	ND	ug/Kg dry	390	52.2000	1	06/08/06
2-Methylnaphthalene	ND	ug/Kg dry	390	38.6000	1	06/08/06
2-Methylphenol	ND	ug/Kg dry	390	28.2000	1	06/08/06
2-Nitroaniline	ND	ug/Kg dry	390	50.8000	1	06/08/06
2-Nitrophenol	ND	ug/Kg dry	390	42.0000	1	06/08/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	781	52.2000	1	06/08/06
3+4-Methylphenol	ND	ug/Kg dry	781	36.6000	1	06/08/06
3-Nitroaniline	ND	ug/Kg dry	390	49.2000	1	06/08/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1960	47.8000	1	06/08/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	390	59.8000	1	06/08/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	390	52.8000	1	06/08/06
4-Chloroaniline	ND	ug/Kg dry	781	268.0000	1	06/08/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	390	44.8000	1	06/08/06
4-Nitroaniline	ND	ug/Kg dry	390	52.0000	1	06/08/06
4-Nitrophenol	ND	ug/Kg dry	1960	430.0000	1	06/08/06
Acenaphthene	ND	ug/Kg dry	390	57.4000	1	06/08/06
Acenaphthylene	ND	ug/Kg dry	390	37.8000	1	06/08/06
Acetophenone	ND	ug/Kg dry	781	502.0000	1	06/08/06
Aniline	ND	ug/Kg dry	1960	56.2000	1	06/08/06
Anthracene	ND	ug/Kg dry	390	44.2000	1	06/08/06
Azobenzene	ND	ug/Kg dry	390	81.8000	1	06/08/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 29.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	390	40.0000	1	06/08/06
Benzo(a)pyrene	ND	ug/Kg dry	196	41.4000	1	06/08/06
Benzo(b)fluoranthene	ND	ug/Kg dry	390	72.2000	1	06/08/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	390	45.6000	1	06/08/06
Benzo(k)fluoranthene	ND	ug/Kg dry	390	68.2000	1	06/08/06
Benzoic Acid	ND	ug/Kg dry	1960	494.0000	1	06/08/06
Benzyl Alcohol	ND	ug/Kg dry	390	46.6000	1	06/08/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	390	32.8000	1	06/08/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	390	61.6000	1	06/08/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	390	44.0000	1	06/08/06
<b>bis(2-Ethylhexyl)phthalate</b>	J 91.0	ug/Kg dry	390	51.6000	1	06/08/06
Butylbenzylphthalate	ND	ug/Kg dry	390	40.8000	1	06/08/06
Carbazole	ND	ug/Kg dry	390	51.0000	1	06/08/06
<b>Chrysene</b>	J 59.7	ug/Kg dry	196	49.0000	1	06/08/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	196	48.0000	1	06/08/06
Dibenzofuran	ND	ug/Kg dry	390	43.4000	1	06/08/06
Diethylphthalate	ND	ug/Kg dry	390	56.8000	1	06/08/06
Dimethylphthalate	ND	ug/Kg dry	390	53.8000	1	06/08/06
Di-n-butylphthalate	ND	ug/Kg dry	390	48.6000	1	06/08/06
Di-n-octylphthalate	ND	ug/Kg dry	390	53.2000	1	06/08/06
<b>Fluoranthene</b>	J 87.5	ug/Kg dry	390	46.8000	1	06/08/06
Fluorene	ND	ug/Kg dry	390	37.2000	1	06/08/06
Hexachlorobenzene	ND	ug/Kg dry	390	55.0000	1	06/08/06
Hexachlorobutadiene	ND	ug/Kg dry	390	72.0000	1	06/08/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1960	222.0000	1	06/08/06
Hexachloroethane	ND	ug/Kg dry	390	44.0000	1	06/08/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	390	56.2000	1	06/08/06
Isophorone	ND	ug/Kg dry	390	32.8000	1	06/08/06
Naphthalene	ND	ug/Kg dry	390	39.2000	1	06/08/06
Nitrobenzene	ND	ug/Kg dry	390	50.6000	1	06/08/06
N-Nitrosodimethylamine	ND	ug/Kg dry	390	66.0000	1	06/08/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	390	48.2000	1	06/08/06
N-nitrosodiphenylamine	ND	ug/Kg dry	390	41.8000	1	06/08/06
Pentachlorophenol	ND	ug/Kg dry	1960	402.0000	1	06/08/06
Phenanthrene	ND	ug/Kg dry	390	53.6000	1	06/08/06
Phenol	ND	ug/Kg dry	390	39.8000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-03 TP-02/0-6"  
Date Sampled: 05/30/06 09:30  
Percent Solids: 88  
Initial Volume: 29.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-03  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	125	ug/Kg dry	390	36.4000	1	06/08/06
Pyridine		ND	ug/Kg dry	1960	88.0000	1	06/08/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	70 %		30-130
Surrogate: 2,4,6-Tribromophenol	78 %		30-130
Surrogate: 2-Chlorophenol-d4	66 %		30-130
Surrogate: 2-Fluorobiphenyl	74 %		30-130
Surrogate: 2-Fluorophenol	63 %		30-130
Surrogate: Nitrobenzene-d5	65 %		30-130
Surrogate: Phenol-d6	68 %		30-130
Surrogate: p-Terphenyl-d14	92 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.78	100
Arsenic	2.4	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.78	100
Beryllium	0.37	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.78	100
Cadmium	ND	mg/kg dry	0.62	6010B	1	SVD	05/31/06	1.78	100
Chromium	5.5	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.78	100
Copper	9.1	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.78	100
Lead	20.9	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.78	100
Mercury	0.038	mg/kg dry	0.036	7471A	1	EEM	06/01/06	0.61	40
Nickel	3.4	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.78	100
Selenium	ND	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.78	100
Silver	ND	mg/kg dry	0.62	6010B	1	SVD	05/31/06	1.78	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.78	100
Zinc	34.4	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.78	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 18.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	100	64.2000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	50.2	42.2000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	50.2	18.0000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	50.2	50.2000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	251	200.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	50.2	18.0000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	5020	4820.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	100	46.2000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1260	410.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	502	100.4000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	502	126.6000	1	05/31/06
Acetone	ND	ug/Kg dry	1260	854.0000	1	05/31/06
Benzene	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	50.2	30.2000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
Bromoform	ND	ug/Kg dry	50.2	22.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 18.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	100	20.0000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Chloroethane	ND	ug/Kg dry	100	60.2000	1	05/31/06
Chloroform	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Chloromethane	ND	ug/Kg dry	100	30.2000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	50.2	16.0000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	50.2	44.2000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	251	38.2000	1	05/31/06
Naphthalene	ND	ug/Kg dry	50.2	16.0000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	50.2	20.0000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
Styrene	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	50.2	28.2000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	251	200.0000	1	05/31/06
Toluene	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	50.2	32.2000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	50.2	24.2000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	50.2	22.2000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	50.2	26.2000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	251	38.2000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	50.2	24.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 18.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	50.2	18.0000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	100	48.2000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	150			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	92 %		70-130
Surrogate: 4-Bromofluorobenzene	91 %		70-130
Surrogate: Dibromofluoromethane	95 %		70-130
Surrogate: Toluene-d8	94 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.49	1	06/05/06
4,4'-DDE	ND	ug/Kg dry	5.49	1	06/05/06
<b>4,4'-DDT</b>	P <b>7.07</b>	ug/Kg dry	5.49	1	06/05/06
Aldrin	ND	ug/Kg dry	5.49	1	06/05/06
alpha-BHC	ND	ug/Kg dry	5.49	1	06/05/06
alpha-Chlordane	ND	ug/Kg dry	5.49	1	06/05/06
beta-BHC	ND	ug/Kg dry	5.49	1	06/05/06
Chlordane (Total)	ND	ug/Kg dry	5.49	1	06/05/06
delta-BHC	ND	ug/Kg dry	5.49	1	06/05/06
Dieldrin	ND	ug/Kg dry	5.49	1	06/05/06
Endosulfan I	ND	ug/Kg dry	5.49	1	06/05/06
Endosulfan II	ND	ug/Kg dry	5.49	1	06/05/06
Endosulfan Sulfate	ND	ug/Kg dry	5.49	1	06/05/06
Endrin	ND	ug/Kg dry	5.49	1	06/05/06
Endrin Aldehyde	ND	ug/Kg dry	5.49	1	06/05/06
Endrin Ketone	ND	ug/Kg dry	5.49	1	06/05/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.49	1	06/05/06
gamma-Chlordane	ND	ug/Kg dry	5.49	1	06/05/06
Heptachlor	ND	ug/Kg dry	5.49	1	06/05/06
Heptachlor Epoxide	ND	ug/Kg dry	5.49	1	06/05/06
Hexachlorobenzene	ND	ug/Kg dry	5.49	1	06/05/06
Methoxychlor	ND	ug/Kg dry	5.49	1	06/05/06
Toxaphene	ND	ug/Kg dry	275	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	77 %		30-150
Surrogate: Decachlorobiphenyl [2C]	72 %		30-150
Surrogate: Tetrachloro-m-xylene	75 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	73 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	54.9	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	85 %		30-150
Surrogate: Decachlorobiphenyl [2C]	92 %		30-150
Surrogate: Tetrachloro-m-xylene	77 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	81 %		30-150



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 29.8  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	27.7	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	62 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 29.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	373	38.2000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	373	48.8000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	373	42.2000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	373	44.4000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	373	42.0000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1870	51.6000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	373	69.6000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	373	39.0000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	373	43.8000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	373	31.4000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1870	434.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	373	56.0000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	373	39.0000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	373	40.4000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	373	50.0000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	373	37.0000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	373	27.0000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	373	48.6000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	373	40.2000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	748	50.0000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	748	35.0000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	373	47.0000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1870	45.8000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	373	57.2000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	373	50.4000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	748	256.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	373	42.8000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	373	49.8000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1870	412.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	373	55.0000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	373	36.2000	1	06/07/06
Acetophenone	ND	ug/Kg dry	748	482.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1870	53.8000	1	06/07/06
Anthracene	ND	ug/Kg dry	373	42.4000	1	06/07/06
Azobenzene	ND	ug/Kg dry	373	78.2000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-04 TP-03/0-6"  
Date Sampled: 05/30/06 10:00  
Percent Solids: 91  
Initial Volume: 29.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	373	38.4000	1	06/07/06
Benzo(a)pyrene	ND	ug/Kg dry	187	39.6000	1	06/07/06
<b>Benzo(b)fluoranthene</b>	J 173	ug/Kg dry	373	69.0000	1	06/07/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	373	43.8000	1	06/07/06
Benzo(k)fluoranthene	ND	ug/Kg dry	373	65.2000	1	06/07/06
Benzoic Acid	ND	ug/Kg dry	1870	472.0000	1	06/07/06
Benzyl Alcohol	ND	ug/Kg dry	373	44.6000	1	06/07/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	373	31.4000	1	06/07/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	373	59.0000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	373	42.2000	1	06/07/06
bis(2-Ethylhexyl)phthalate	ND	ug/Kg dry	373	49.4000	1	06/07/06
Butylbenzylphthalate	ND	ug/Kg dry	373	39.0000	1	06/07/06
Carbazole	ND	ug/Kg dry	373	48.8000	1	06/07/06
Chrysene	ND	ug/Kg dry	187	46.8000	1	06/07/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	187	46.0000	1	06/07/06
Dibenzofuran	ND	ug/Kg dry	373	41.4000	1	06/07/06
Diethylphthalate	ND	ug/Kg dry	373	54.2000	1	06/07/06
Dimethylphthalate	ND	ug/Kg dry	373	51.6000	1	06/07/06
Di-n-butylphthalate	ND	ug/Kg dry	373	46.4000	1	06/07/06
Di-n-octylphthalate	ND	ug/Kg dry	373	51.0000	1	06/07/06
<b>Fluoranthene</b>	J 59.8	ug/Kg dry	373	44.8000	1	06/07/06
Fluorene	ND	ug/Kg dry	373	35.6000	1	06/07/06
Hexachlorobenzene	ND	ug/Kg dry	373	52.8000	1	06/07/06
Hexachlorobutadiene	ND	ug/Kg dry	373	68.8000	1	06/07/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1870	214.0000	1	06/07/06
Hexachloroethane	ND	ug/Kg dry	373	42.2000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	373	53.8000	1	06/07/06
Isophorone	ND	ug/Kg dry	373	31.4000	1	06/07/06
Naphthalene	ND	ug/Kg dry	373	37.4000	1	06/07/06
Nitrobenzene	ND	ug/Kg dry	373	48.4000	1	06/07/06
N-Nitrosodimethylamine	ND	ug/Kg dry	373	63.2000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	373	46.2000	1	06/07/06
N-nitrosodiphenylamine	ND	ug/Kg dry	373	40.0000	1	06/07/06
Pentachlorophenol	ND	ug/Kg dry	1870	384.0000	1	06/07/06
Phenanthrene	ND	ug/Kg dry	373	51.4000	1	06/07/06
Phenol	ND	ug/Kg dry	373	38.2000	1	06/07/06

# ESS Laboratory

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Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-04  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	40.4	ug/Kg dry	373	34.8000	1	06/07/06
Pyridine	ND		ug/Kg dry	1870	84.4000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	65 %		30-130
Surrogate: 2,4,6-Tribromophenol	71 %		30-130
Surrogate: 2-Chlorophenol-d4	58 %		30-130
Surrogate: 2-Fluorobiphenyl	76 %		30-130
Surrogate: 2-Fluorophenol	59 %		30-130
Surrogate: Nitrobenzene-d5	71 %		30-130
Surrogate: Phenol-d6	59 %		30-130
Surrogate: p-Terphenyl-d14	67 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-05 TP-04/0-6"  
Date Sampled: 05/30/06 10:20  
Percent Solids: 92

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.79	100
Arsenic	2.4	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.79	100
Beryllium	0.33	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.79	100
Cadmium	ND	mg/kg dry	0.61	6010B	1	SVD	05/31/06	1.79	100
Chromium	5.9	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.79	100
Copper	4.2	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.79	100
Lead	11.0	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.79	100
Mercury	ND	mg/kg dry	0.036	7471A	1	EEM	06/01/06	0.61	40
Nickel	3.1	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.79	100
Selenium	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.79	100
Silver	ND	mg/kg dry	0.61	6010B	1	SVD	05/31/06	1.79	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.79	100
Zinc	19.9	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.79	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-05 TP-04/0-6"  
Date Sampled: 05/30/06 10:20  
Percent Solids: 92  
Initial Volume: 17.6  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	101	64.8000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	50.7	42.6000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	50.7	18.2000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	50.7	50.6000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	253	202.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	50.7	18.2000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	5070	4860.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	101	46.6000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1270	414.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	507	101.4000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	507	127.6000	1	05/31/06
Acetone	ND	ug/Kg dry	1270	862.0000	1	05/31/06
Benzene	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	50.7	30.4000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
Bromoform	ND	ug/Kg dry	50.7	22.2000	1	05/31/06

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Date Sampled: 05/30/06 10:20  
Percent Solids: 92  
Initial Volume: 17.6  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	101	20.2000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Chloroethane	ND	ug/Kg dry	101	60.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Chloromethane	ND	ug/Kg dry	101	30.4000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	50.7	16.2000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	50.7	44.6000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	253	38.6000	1	05/31/06
Naphthalene	ND	ug/Kg dry	50.7	16.2000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	50.7	20.2000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
Styrene	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	50.7	28.4000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	253	202.0000	1	05/31/06
Toluene	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	50.7	32.4000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	50.7	24.4000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	50.7	22.2000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	50.7	26.4000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	253	38.6000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	50.7	24.4000	1	05/31/06

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Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	50.7	18.2000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	101	48.6000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	152			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	93 %		70-130
Surrogate: 4-Bromofluorobenzene	90 %		70-130
Surrogate: Dibromofluoromethane	99 %		70-130
Surrogate: Toluene-d8	94 %		70-130



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 Percent Solids: 92  
 Initial Volume: 20  
 Final Volume: 10  
 Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
 ESS Laboratory Sample ID: 0605478-05  
 Sample Matrix: Soil  
 Analyst: SEP  
 Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>		<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD		ND	ug/Kg dry	5.43	1	06/05/06
4,4'-DDE	P	7.24	ug/Kg dry	5.43	1	06/05/06
4,4'-DDT		23.8	ug/Kg dry	5.43	1	06/05/06
Aldrin		ND	ug/Kg dry	5.43	1	06/05/06
alpha-BHC		ND	ug/Kg dry	5.43	1	06/05/06
alpha-Chlordane	P	10.6	ug/Kg dry	5.43	1	06/05/06
beta-BHC		ND	ug/Kg dry	5.43	1	06/05/06
Chlordane (Total)		ND	ug/Kg dry	5.43	1	06/05/06
delta-BHC		ND	ug/Kg dry	5.43	1	06/05/06
Dieldrin		ND	ug/Kg dry	5.43	1	06/05/06
Endosulfan I		ND	ug/Kg dry	5.43	1	06/05/06
Endosulfan II		ND	ug/Kg dry	5.43	1	06/05/06
Endosulfan Sulfate		ND	ug/Kg dry	5.43	1	06/05/06
Endrin		14.1	ug/Kg dry	5.43	1	06/05/06
Endrin Aldehyde		ND	ug/Kg dry	5.43	1	06/05/06
Endrin Ketone		ND	ug/Kg dry	5.43	1	06/05/06
gamma-BHC (Lindane)		ND	ug/Kg dry	5.43	1	06/05/06
gamma-Chlordane	P	10.4	ug/Kg dry	5.43	1	06/05/06
Heptachlor		ND	ug/Kg dry	5.43	1	06/05/06
Heptachlor Epoxide		ND	ug/Kg dry	5.43	1	06/05/06
Hexachlorobenzene		ND	ug/Kg dry	5.43	1	06/05/06
Methoxychlor		ND	ug/Kg dry	5.43	1	06/05/06
Toxaphene		ND	ug/Kg dry	272	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	89 %		30-150
Surrogate: Decachlorobiphenyl [2C]	84 %		30-150
Surrogate: Tetrachloro-m-xylene	89 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	90 %		30-150

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Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	54.3	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	54.3	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	54.3	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	54.3	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	54.3	1	06/05/06
<b>Aroclor 1254</b>	<b>169</b>	ug/Kg dry	54.3	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	54.3	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	54.3	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	54.3	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	78 %		30-150
Surrogate: Decachlorobiphenyl [2C]	86 %		30-150
Surrogate: Tetrachloro-m-xylene	85 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	92 %		30-150

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Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-05 TP-04/0-6"  
Date Sampled: 05/30/06 10:20  
Percent Solids: 92  
Initial Volume: 29.7  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	27.4	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	73 %		40-140

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ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	357	36.4000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	357	46.8000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	357	40.4000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	357	42.4000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	357	40.2000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1790	49.4000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	357	66.6000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	357	37.4000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	357	41.8000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	357	30.0000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1790	416.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	357	53.6000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	357	37.4000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	357	38.6000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	357	47.8000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	357	35.4000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	357	25.8000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	357	46.6000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	357	38.4000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	715	47.8000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	715	33.4000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	357	45.0000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1790	43.8000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	357	54.8000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	357	48.2000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	715	244.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	357	41.0000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	357	47.6000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1790	394.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	357	52.6000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	357	34.6000	1	06/07/06
Acetophenone	ND	ug/Kg dry	715	460.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1790	51.4000	1	06/07/06
Anthracene	ND	ug/Kg dry	357	40.6000	1	06/07/06
Azobenzene	ND	ug/Kg dry	357	74.8000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-05 TP-04/0-6"  
Date Sampled: 05/30/06 10:20  
Percent Solids: 92  
Initial Volume: 30.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	101	ug/Kg dry	357	36.6000	1	06/07/06
Benzo(a)pyrene	J	87.2	ug/Kg dry	179	38.0000	1	06/07/06
Benzo(b)fluoranthene	J	236	ug/Kg dry	357	66.0000	1	06/07/06
Benzo(g,h,i)perylene	J	52.6	ug/Kg dry	357	41.8000	1	06/07/06
Benzo(k)fluoranthene	J	75.1	ug/Kg dry	357	62.4000	1	06/07/06
Benzoic Acid	ND		ug/Kg dry	1790	452.0000	1	06/07/06
Benzyl Alcohol	ND		ug/Kg dry	357	42.6000	1	06/07/06
bis(2-Chloroethoxy)methane	ND		ug/Kg dry	357	30.0000	1	06/07/06
bis(2-Chloroethyl)ether	ND		ug/Kg dry	357	56.4000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND		ug/Kg dry	357	40.4000	1	06/07/06
bis(2-Ethylhexyl)phthalate		422	ug/Kg dry	357	47.2000	1	06/07/06
Butylbenzylphthalate	ND		ug/Kg dry	357	37.4000	1	06/07/06
Carbazole	ND		ug/Kg dry	357	46.8000	1	06/07/06
Chrysene	J	118	ug/Kg dry	179	44.8000	1	06/07/06
Dibenzo(a,h)Anthracene	ND		ug/Kg dry	179	44.0000	1	06/07/06
Dibenzofuran	ND		ug/Kg dry	357	39.6000	1	06/07/06
Diethylphthalate	ND		ug/Kg dry	357	52.0000	1	06/07/06
Dimethylphthalate	ND		ug/Kg dry	357	49.4000	1	06/07/06
Di-n-butylphthalate	ND		ug/Kg dry	357	44.4000	1	06/07/06
Di-n-octylphthalate	ND		ug/Kg dry	357	48.6000	1	06/07/06
Fluoranthene	J	267	ug/Kg dry	357	43.0000	1	06/07/06
Fluorene	ND		ug/Kg dry	357	34.2000	1	06/07/06
Hexachlorobenzene	ND		ug/Kg dry	357	50.4000	1	06/07/06
Hexachlorobutadiene	ND		ug/Kg dry	357	65.8000	1	06/07/06
Hexachlorocyclopentadiene	ND		ug/Kg dry	1790	204.0000	1	06/07/06
Hexachloroethane	ND		ug/Kg dry	357	40.4000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	J	52.6	ug/Kg dry	357	51.4000	1	06/07/06
Isophorone	ND		ug/Kg dry	357	30.0000	1	06/07/06
Naphthalene	ND		ug/Kg dry	357	35.8000	1	06/07/06
Nitrobenzene	ND		ug/Kg dry	357	46.4000	1	06/07/06
N-Nitrosodimethylamine	ND		ug/Kg dry	357	60.4000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND		ug/Kg dry	357	44.2000	1	06/07/06
N-nitrosodiphenylamine	ND		ug/Kg dry	357	38.2000	1	06/07/06
Pentachlorophenol	ND		ug/Kg dry	1790	368.0000	1	06/07/06
Phenanthrene	J	182	ug/Kg dry	357	49.2000	1	06/07/06
Phenol	ND		ug/Kg dry	357	36.4000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

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Date Sampled: 05/30/06 10:20  
Percent Solids: 92  
Initial Volume: 30.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-05  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	173	ug/Kg dry	357	33.2000	1	06/07/06
Pyridine		ND	ug/Kg dry	1790	80.6000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	51 %		30-130
Surrogate: 2,4,6-Tribromophenol	55 %		30-130
Surrogate: 2-Chlorophenol-d4	48 %		30-130
Surrogate: 2-Fluorobiphenyl	61 %		30-130
Surrogate: 2-Fluorophenol	47 %		30-130
Surrogate: Nitrobenzene-d5	56 %		30-130
Surrogate: Phenol-d6	48 %		30-130
Surrogate: p-Terphenyl-d14	55 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-06 TP-05/0-6"  
Date Sampled: 05/30/06 10:45  
Percent Solids: 87

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.6	6010B	1	SVD	05/31/06	1.75	100
Arsenic	ND	mg/kg dry	1.6	7060A	5	SVD	06/03/06	1.75	100
<b>Beryllium</b>	<b>0.22</b>	mg/kg dry	0.07	6010B	1	SVD	05/31/06	1.75	100
Cadmium	ND	mg/kg dry	0.66	6010B	1	SVD	05/31/06	1.75	100
<b>Chromium</b>	<b>5.3</b>	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.75	100
<b>Copper</b>	<b>8.2</b>	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.75	100
<b>Lead</b>	<b>15.1</b>	mg/kg dry	6.6	6010B	1	SVD	05/31/06	1.75	100
Mercury	ND	mg/kg dry	0.037	7471A	1	EEM	06/01/06	0.62	40
<b>Nickel</b>	<b>3.3</b>	mg/kg dry	3.3	6010B	1	SVD	05/31/06	1.75	100
Selenium	ND	mg/kg dry	6.6	6010B	1	SVD	05/31/06	1.75	100
Silver	ND	mg/kg dry	0.66	6010B	1	SVD	05/31/06	1.75	100
Thallium	ND	mg/kg dry	1.6	7841	5	JP	06/01/06	1.75	100
<b>Zinc</b>	<b>48.2</b>	mg/kg dry	3.3	6010B	1	SVD	05/31/06	1.75	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-06 TP-05/0-6"  
Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 16.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	121	77.6000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	60.7	51.0000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	60.7	21.8000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	60.7	60.6000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	303	242.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	60.7	21.8000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	6070	5820.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	121	55.8000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1520	496.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	607	121.4000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	607	153.0000	1	05/31/06
Acetone	ND	ug/Kg dry	1520	1032.0000	1	05/31/06
Benzene	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	60.7	36.4000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
Bromoform	ND	ug/Kg dry	60.7	26.8000	1	05/31/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-06 TP-05/0-6"  
Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 16.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	121	24.2000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Chloroethane	ND	ug/Kg dry	121	72.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Chloromethane	ND	ug/Kg dry	121	36.4000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	60.7	19.4000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	60.7	53.4000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	303	46.2000	1	05/31/06
Naphthalene	ND	ug/Kg dry	60.7	19.4000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	60.7	24.2000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
Styrene	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	60.7	34.0000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	303	242.0000	1	05/31/06
Toluene	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	60.7	38.8000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	60.7	29.2000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	60.7	26.8000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	60.7	31.6000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	303	46.2000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	60.7	29.2000	1	05/31/06

# ESS Laboratory

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Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 16.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	60.7	21.8000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	121	58.2000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	182			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	98 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		70-130
Surrogate: Dibromofluoromethane	104 %		70-130
Surrogate: Toluene-d8	98 %		70-130

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Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	15.9	ug/Kg dry	5.75	1	06/05/06
4,4'-DDE	55.6	ug/Kg dry	5.75	1	06/05/06
4,4'-DDT	46.7	ug/Kg dry	5.75	1	06/05/06
Aldrin	ND	ug/Kg dry	5.75	1	06/05/06
alpha-BHC	ND	ug/Kg dry	5.75	1	06/05/06
alpha-Chlordane	P 21.0	ug/Kg dry	5.75	1	06/05/06
beta-BHC	ND	ug/Kg dry	5.75	1	06/05/06
Chlordane (Total)	76.3	ug/Kg dry	57.5	1	06/05/06
delta-BHC	ND	ug/Kg dry	5.75	1	06/05/06
Dieldrin	ND	ug/Kg dry	5.75	1	06/05/06
Endosulfan I	ND	ug/Kg dry	5.75	1	06/05/06
Endosulfan II	ND	ug/Kg dry	5.75	1	06/05/06
Endosulfan Sulfate	ND	ug/Kg dry	5.75	1	06/05/06
Endrin	ND	ug/Kg dry	5.75	1	06/05/06
Endrin Aldehyde	ND	ug/Kg dry	5.75	1	06/05/06
Endrin Ketone	ND	ug/Kg dry	5.75	1	06/05/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.75	1	06/05/06
gamma-Chlordane	12.1	ug/Kg dry	5.75	1	06/05/06
Heptachlor	ND	ug/Kg dry	5.75	1	06/05/06
Heptachlor Epoxide	ND	ug/Kg dry	5.75	1	06/05/06
Hexachlorobenzene	ND	ug/Kg dry	5.75	1	06/05/06
Methoxychlor	ND	ug/Kg dry	5.75	1	06/05/06
Toxaphene	ND	ug/Kg dry	287	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	114 %		30-150
Surrogate: Decachlorobiphenyl [2C]	100 %		30-150
Surrogate: Tetrachloro-m-xylene	94 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	99 %		30-150

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Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	57.4	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	57.4	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	76 %		30-150
Surrogate: Decachlorobiphenyl [2C]	103 %		30-150
Surrogate: Tetrachloro-m-xylene	86 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	91 %		30-150

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Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 30.5  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	28.3	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	58 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-06 TP-05/0-6"  
Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 29.5  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	389	39.8000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	389	51.0000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	389	44.0000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	389	46.2000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	389	43.8000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1950	53.8000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	389	72.4000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	389	40.6000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	389	45.6000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	389	32.8000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1950	454.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	389	58.4000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	389	40.6000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	389	42.0000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	389	52.2000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	389	38.6000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	389	28.0000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	389	50.8000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	389	41.8000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	780	52.2000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	780	36.4000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	389	49.0000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1950	47.6000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	389	59.6000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	389	52.6000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	780	266.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	389	44.6000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	389	51.8000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1950	428.0000	1	06/07/06
<b>Acenaphthene</b>	J <b>158</b>	ug/Kg dry	389	57.2000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	389	37.6000	1	06/07/06
Acetophenone	ND	ug/Kg dry	780	502.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1950	56.2000	1	06/07/06
<b>Anthracene</b>	<b>799</b>	ug/Kg dry	389	44.2000	1	06/07/06
Azobenzene	ND	ug/Kg dry	389	81.6000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-06 TP-05/0-6"  
Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 29.5  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	5890	ug/Kg dry	389	40.0000	1	06/07/06
Benzo(a)pyrene	4350	ug/Kg dry	195	41.4000	1	06/07/06
Benzo(b)fluoranthene	5040	ug/Kg dry	389	72.0000	1	06/07/06
Benzo(g,h,i)perylene	1600	ug/Kg dry	389	45.6000	1	06/07/06
Benzo(k)fluoranthene	3400	ug/Kg dry	389	68.0000	1	06/07/06
Benzoic Acid	ND	ug/Kg dry	1950	492.0000	1	06/07/06
Benzyl Alcohol	ND	ug/Kg dry	389	46.6000	1	06/07/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	389	32.8000	1	06/07/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	389	61.4000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	389	44.0000	1	06/07/06
bis(2-Ethylhexyl)phthalate	J 141	ug/Kg dry	389	51.4000	1	06/07/06
Butylbenzylphthalate	ND	ug/Kg dry	389	40.6000	1	06/07/06
Carbazole	J 385	ug/Kg dry	389	51.0000	1	06/07/06
Chrysene	5630	ug/Kg dry	195	48.8000	1	06/07/06
Dibenzo(a,h)Anthracene	J 134	ug/Kg dry	195	48.0000	1	06/07/06
Dibenzofuran	J 64.7	ug/Kg dry	389	43.2000	1	06/07/06
Diethylphthalate	ND	ug/Kg dry	389	56.6000	1	06/07/06
Dimethylphthalate	ND	ug/Kg dry	389	53.8000	1	06/07/06
Di-n-butylphthalate	ND	ug/Kg dry	389	48.4000	1	06/07/06
Di-n-octylphthalate	ND	ug/Kg dry	389	53.0000	1	06/07/06
Fluoranthene	12400	ug/Kg dry	1950	234.0000	5	06/07/06
Fluorene	J 158	ug/Kg dry	389	37.2000	1	06/07/06
Hexachlorobenzene	ND	ug/Kg dry	389	55.0000	1	06/07/06
Hexachlorobutadiene	ND	ug/Kg dry	389	71.8000	1	06/07/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1950	222.0000	1	06/07/06
Hexachloroethane	ND	ug/Kg dry	389	44.0000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	1670	ug/Kg dry	389	56.2000	1	06/07/06
Isophorone	ND	ug/Kg dry	389	32.8000	1	06/07/06
Naphthalene	ND	ug/Kg dry	389	39.0000	1	06/07/06
Nitrobenzene	ND	ug/Kg dry	389	50.4000	1	06/07/06
N-Nitrosodimethylamine	ND	ug/Kg dry	389	66.0000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	389	48.2000	1	06/07/06
N-nitrosodiphenylamine	ND	ug/Kg dry	389	41.6000	1	06/07/06
Pentachlorophenol	ND	ug/Kg dry	1950	400.0000	1	06/07/06
Phenanthrene	2880	ug/Kg dry	389	53.6000	1	06/07/06
Phenol	ND	ug/Kg dry	389	39.8000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-06 TP-05/0-6"  
Date Sampled: 05/30/06 10:45  
Percent Solids: 87  
Initial Volume: 29.5  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-06  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	7790	ug/Kg dry	389	36.2000	1	06/07/06
Pyridine	ND	ug/Kg dry	1950	88.0000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	59 %		30-130
Surrogate: 2,4,6-Tribromophenol	66 %		30-130
Surrogate: 2-Chlorophenol-d4	55 %		30-130
Surrogate: 2-Fluorobiphenyl	73 %		30-130
Surrogate: 2-Fluorophenol	56 %		30-130
Surrogate: Nitrobenzene-d5	66 %		30-130
Surrogate: Phenol-d6	55 %		30-130
Surrogate: p-Terphenyl-d14	92 %		30-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.79	100
Arsenic	3.2	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.79	100
Beryllium	0.39	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.79	100
Cadmium	ND	mg/kg dry	0.61	6010B	1	SVD	05/31/06	1.79	100
Chromium	5.6	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.79	100
Copper	9.5	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.79	100
Lead	12.0	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.79	100
Mercury	ND	mg/kg dry	0.035	7471A	1	EEM	06/01/06	0.63	40
Nickel	3.8	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.79	100
Selenium	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.79	100
Silver	ND	mg/kg dry	0.61	6010B	1	SVD	05/31/06	1.79	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.79	100
Zinc	30.2	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.79	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	97.1	62.2000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	48.6	40.8000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	48.6	17.4000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	48.6	48.6000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	243	194.2000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	48.6	17.4000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	4860	4660.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	97.1	44.6000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1210	396.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	486	97.2000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	486	122.4000	1	05/31/06
Acetone	ND	ug/Kg dry	1210	826.0000	1	05/31/06
Benzene	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	48.6	29.2000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
Bromoform	ND	ug/Kg dry	48.6	21.4000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	97.1	19.4000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Chloroethane	ND	ug/Kg dry	97.1	58.2000	1	05/31/06
Chloroform	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Chloromethane	ND	ug/Kg dry	97.1	29.2000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	48.6	15.6000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	48.6	42.8000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	243	36.8000	1	05/31/06
Naphthalene	ND	ug/Kg dry	48.6	15.6000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	48.6	19.4000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
Styrene	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	48.6	27.2000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	243	194.2000	1	05/31/06
Toluene	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	48.6	31.0000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	48.6	23.4000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	48.6	21.4000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	48.6	25.2000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	243	36.8000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	48.6	23.4000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 18.9  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	48.6	17.4000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	97.1	46.6000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	146			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	96 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		70-130
Surrogate: Dibromofluoromethane	102 %		70-130
Surrogate: Toluene-d8	97 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.49	1	06/04/06
<b>4,4'-DDE</b>	<b>10.4</b>	ug/Kg dry	5.49	1	06/04/06
4,4'-DDT	ND	ug/Kg dry	5.49	1	06/04/06
Aldrin	ND	ug/Kg dry	5.49	1	06/04/06
alpha-BHC	ND	ug/Kg dry	5.49	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	5.49	1	06/04/06
beta-BHC	ND	ug/Kg dry	5.49	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	54.9	1	06/04/06
delta-BHC	ND	ug/Kg dry	5.49	1	06/04/06
Dieldrin	ND	ug/Kg dry	5.49	1	06/04/06
Endosulfan I	ND	ug/Kg dry	5.49	1	06/04/06
Endosulfan II	ND	ug/Kg dry	5.49	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	5.49	1	06/04/06
Endrin	ND	ug/Kg dry	5.49	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	5.49	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	5.49	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.49	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	5.49	1	06/04/06
Heptachlor	ND	ug/Kg dry	5.49	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	5.49	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	5.49	1	06/04/06
Methoxychlor	ND	ug/Kg dry	5.49	1	06/04/06
Toxaphene	ND	ug/Kg dry	275	1	06/04/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	78 %		30-150
Surrogate: Decachlorobiphenyl [2C]	75 %		30-150
Surrogate: Tetrachloro-m-xylene	75 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	77 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	54.9	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	78 %		30-150
Surrogate: Decachlorobiphenyl [2C]	89 %		30-150
Surrogate: Tetrachloro-m-xylene	87 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	88 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 29.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 05/31/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	28.3	1	06/02/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	66 %		40-140

# ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	365	37.2000	1	06/08/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	365	47.8000	1	06/08/06
1,2-Dichlorobenzene	ND	ug/Kg dry	365	41.2000	1	06/08/06
1,3-Dichlorobenzene	ND	ug/Kg dry	365	43.4000	1	06/08/06
1,4-Dichlorobenzene	ND	ug/Kg dry	365	41.0000	1	06/08/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1830	50.4000	1	06/08/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	365	68.0000	1	06/08/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	365	38.2000	1	06/08/06
2,4-Dichlorophenol	ND	ug/Kg dry	365	42.8000	1	06/08/06
2,4-Dimethylphenol	ND	ug/Kg dry	365	30.6000	1	06/08/06
2,4-Dinitrophenol	ND	ug/Kg dry	1830	424.0000	1	06/08/06
2,4-Dinitrotoluene	ND	ug/Kg dry	365	54.8000	1	06/08/06
2,6-Dinitrotoluene	ND	ug/Kg dry	365	38.2000	1	06/08/06
2-Chloronaphthalene	ND	ug/Kg dry	365	39.4000	1	06/08/06
2-Chlorophenol	ND	ug/Kg dry	365	48.8000	1	06/08/06
2-Methylnaphthalene	ND	ug/Kg dry	365	36.2000	1	06/08/06
2-Methylphenol	ND	ug/Kg dry	365	26.2000	1	06/08/06
2-Nitroaniline	ND	ug/Kg dry	365	47.6000	1	06/08/06
2-Nitrophenol	ND	ug/Kg dry	365	39.2000	1	06/08/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	731	48.8000	1	06/08/06
3+4-Methylphenol	ND	ug/Kg dry	731	34.2000	1	06/08/06
3-Nitroaniline	ND	ug/Kg dry	365	46.0000	1	06/08/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1830	44.6000	1	06/08/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	365	55.8000	1	06/08/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	365	49.2000	1	06/08/06
4-Chloroaniline	ND	ug/Kg dry	731	250.0000	1	06/08/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	365	41.8000	1	06/08/06
4-Nitroaniline	ND	ug/Kg dry	365	48.6000	1	06/08/06
4-Nitrophenol	ND	ug/Kg dry	1830	402.0000	1	06/08/06
Acenaphthene	ND	ug/Kg dry	365	53.6000	1	06/08/06
Acenaphthylene	ND	ug/Kg dry	365	35.2000	1	06/08/06
Acetophenone	ND	ug/Kg dry	731	470.0000	1	06/08/06
Aniline	ND	ug/Kg dry	1830	52.6000	1	06/08/06
Anthracene	ND	ug/Kg dry	365	41.4000	1	06/08/06
Azobenzene	ND	ug/Kg dry	365	76.4000	1	06/08/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

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Client Sample ID: 3027060530-07 TP-05/6"-2'  
Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	365	37.4000	1	06/08/06
<b>Benzo(a)pyrene</b>	J 39.8	ug/Kg dry	183	38.8000	1	06/08/06
Benzo(b)fluoranthene	ND	ug/Kg dry	365	67.4000	1	06/08/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	365	42.8000	1	06/08/06
Benzo(k)fluoranthene	ND	ug/Kg dry	365	63.8000	1	06/08/06
Benzoic Acid	ND	ug/Kg dry	1830	462.0000	1	06/08/06
Benzyl Alcohol	ND	ug/Kg dry	365	43.6000	1	06/08/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	365	30.6000	1	06/08/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	365	57.6000	1	06/08/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	365	41.2000	1	06/08/06
bis(2-Ethylhexyl)phthalate	ND	ug/Kg dry	365	48.2000	1	06/08/06
Butylbenzylphthalate	ND	ug/Kg dry	365	38.2000	1	06/08/06
Carbazole	ND	ug/Kg dry	365	47.8000	1	06/08/06
<b>Chrysene</b>	J 46.0	ug/Kg dry	183	45.8000	1	06/08/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	183	45.0000	1	06/08/06
Dibenzofuran	ND	ug/Kg dry	365	40.6000	1	06/08/06
Diethylphthalate	ND	ug/Kg dry	365	53.0000	1	06/08/06
Dimethylphthalate	ND	ug/Kg dry	365	50.4000	1	06/08/06
Di-n-butylphthalate	ND	ug/Kg dry	365	45.4000	1	06/08/06
Di-n-octylphthalate	ND	ug/Kg dry	365	49.8000	1	06/08/06
<b>Fluoranthene</b>	J 58.0	ug/Kg dry	365	43.8000	1	06/08/06
Fluorene	ND	ug/Kg dry	365	34.8000	1	06/08/06
Hexachlorobenzene	ND	ug/Kg dry	365	51.4000	1	06/08/06
Hexachlorobutadiene	ND	ug/Kg dry	365	67.2000	1	06/08/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1830	208.0000	1	06/08/06
Hexachloroethane	ND	ug/Kg dry	365	41.2000	1	06/08/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	365	52.6000	1	06/08/06
Isophorone	ND	ug/Kg dry	365	30.6000	1	06/08/06
Naphthalene	ND	ug/Kg dry	365	36.6000	1	06/08/06
Nitrobenzene	ND	ug/Kg dry	365	47.4000	1	06/08/06
N-Nitrosodimethylamine	ND	ug/Kg dry	365	61.8000	1	06/08/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	365	45.2000	1	06/08/06
N-nitrosodiphenylamine	ND	ug/Kg dry	365	39.0000	1	06/08/06
Pentachlorophenol	ND	ug/Kg dry	1830	376.0000	1	06/08/06
Phenanthrene	ND	ug/Kg dry	365	50.2000	1	06/08/06
Phenol	ND	ug/Kg dry	365	37.2000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
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Date Sampled: 05/30/06 11:00  
Percent Solids: 91  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-07  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	103	ug/Kg dry	365	34.0000	1	06/08/06
Pyridine		ND	ug/Kg dry	1830	82.4000	1	06/08/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	65 %		30-130
Surrogate: 2,4,6-Tribromophenol	78 %		30-130
Surrogate: 2-Chlorophenol-d4	63 %		30-130
Surrogate: 2-Fluorobiphenyl	76 %		30-130
Surrogate: 2-Fluorophenol	59 %		30-130
Surrogate: Nitrobenzene-d5	63 %		30-130
Surrogate: Phenol-d6	65 %		30-130
Surrogate: p-Terphenyl-d14	102 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.3	6010B	1	SVD	05/31/06	1.75	100
Arsenic	1.9	mg/kg dry	1.6	7060A	5	SVD	06/03/06	1.75	100
Beryllium	0.22	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.75	100
Cadmium	ND	mg/kg dry	0.63	6010B	1	SVD	05/31/06	1.75	100
Chromium	12.1	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.75	100
Copper	47.1	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.75	100
Lead	82.3	mg/kg dry	6.3	6010B	1	SVD	05/31/06	1.75	100
Mercury	0.122	mg/kg dry	0.033	7471A	1	EEM	06/01/06	0.67	40
Nickel	7.5	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.75	100
Selenium	ND	mg/kg dry	6.3	6010B	1	SVD	05/31/06	1.75	100
Silver	ND	mg/kg dry	0.63	6010B	1	SVD	05/31/06	1.75	100
Thallium	ND	mg/kg dry	1.6	7841	5	JP	06/01/06	1.75	100
Zinc	127	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.75	100

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 23.1  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	81.2	52.0000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	40.6	34.2000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	40.6	14.6000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	40.6	40.6000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	203	162.4000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	40.6	14.6000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	4060	3900.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	81.2	37.4000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1020	332.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	406	81.2000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	406	102.4000	1	05/31/06
Acetone	ND	ug/Kg dry	1020	690.0000	1	05/31/06
Benzene	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	40.6	24.4000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
Bromoform	ND	ug/Kg dry	40.6	17.8000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 23.1  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	81.2	16.2000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Chloroethane	ND	ug/Kg dry	81.2	48.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Chloromethane	ND	ug/Kg dry	81.2	24.4000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	40.6	13.0000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	40.6	35.8000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	203	30.8000	1	05/31/06
Naphthalene	ND	ug/Kg dry	40.6	13.0000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	40.6	16.2000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
Styrene	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	40.6	22.8000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	203	162.4000	1	05/31/06
Toluene	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	40.6	26.0000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	40.6	19.4000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	40.6	17.8000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	40.6	21.2000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	203	30.8000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	40.6	19.4000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

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Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 23.1  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	40.6	14.6000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	81.2	39.0000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	122			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	95 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	102 %		70-130
Surrogate: Toluene-d8	96 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

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Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Mickey Stevens  
 Client Sample ID: 3027060530-08 TP-06/0-6"  
 Date Sampled: 05/30/06 11:15  
 Percent Solids: 91  
 Initial Volume: 19.8  
 Final Volume: 10  
 Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
 ESS Laboratory Sample ID: 0605478-08  
 Sample Matrix: Soil  
 Analyst: SEP  
 Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.55	1	06/04/06
4,4'-DDE	15.4	ug/Kg dry	5.55	1	06/04/06
4,4'-DDT	21.4	ug/Kg dry	5.55	1	06/04/06
Aldrin	ND	ug/Kg dry	5.55	1	06/04/06
alpha-BHC	ND	ug/Kg dry	5.55	1	06/04/06
alpha-Chlordane	P 103	ug/Kg dry	27.8	5	06/05/06
beta-BHC	ND	ug/Kg dry	5.55	1	06/04/06
Chlordane (Total)	311	ug/Kg dry	278	5	06/05/06
delta-BHC	ND	ug/Kg dry	5.55	1	06/04/06
Dieldrin	8.19	ug/Kg dry	5.55	1	06/04/06
Endosulfan I	ND	ug/Kg dry	5.55	1	06/04/06
Endosulfan II	ND	ug/Kg dry	5.55	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	5.55	1	06/04/06
Endrin	ND	ug/Kg dry	5.55	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	5.55	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	5.55	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.55	1	06/04/06
gamma-Chlordane	40.7	ug/Kg dry	27.8	5	06/05/06
Heptachlor	ND	ug/Kg dry	5.55	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	5.55	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	5.55	1	06/04/06
Methoxychlor	ND	ug/Kg dry	5.55	1	06/04/06
Toxaphene	ND	ug/Kg dry	278	1	06/04/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	74 %		30-150
Surrogate: Decachlorobiphenyl [2C]	65 %		30-150
Surrogate: Tetrachloro-m-xylene	67 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	68 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 19.8  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	55.4	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	55.4	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	76 %		30-150
Surrogate: Decachlorobiphenyl [2C]	98 %		30-150
Surrogate: Tetrachloro-m-xylene	81 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	83 %		30-150



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	27.4	1	06/03/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	67 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	371	37.8000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	371	48.6000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	371	41.8000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	371	44.2000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	371	41.6000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1860	51.2000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	371	69.0000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	371	38.8000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	371	43.4000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	371	31.2000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1860	432.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	371	55.6000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	371	38.8000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	371	40.0000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	371	49.6000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	371	36.8000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	371	26.8000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	371	48.4000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	371	39.8000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	743	49.6000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	743	34.8000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	371	46.8000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1860	45.4000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	371	56.8000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	371	50.2000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	743	254.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	371	42.6000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	371	49.4000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1860	408.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	371	54.6000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	371	35.8000	1	06/07/06
Acetophenone	ND	ug/Kg dry	743	478.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1860	53.4000	1	06/07/06
Anthracene	ND	ug/Kg dry	371	42.0000	1	06/07/06
Azobenzene	ND	ug/Kg dry	371	77.8000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	140	ug/Kg dry	371	38.0000	1	06/07/06
Benzo(a)pyrene		200	ug/Kg dry	186	39.4000	1	06/07/06
Benzo(b)fluoranthene	J	343	ug/Kg dry	371	68.6000	1	06/07/06
Benzo(g,h,i)perylene	J	110	ug/Kg dry	371	43.4000	1	06/07/06
Benzo(k)fluoranthene	J	177	ug/Kg dry	371	64.8000	1	06/07/06
Benzoic Acid		ND	ug/Kg dry	1860	470.0000	1	06/07/06
Benzyl Alcohol		ND	ug/Kg dry	371	44.4000	1	06/07/06
bis(2-Chloroethoxy)methane		ND	ug/Kg dry	371	31.2000	1	06/07/06
bis(2-Chloroethyl)ether		ND	ug/Kg dry	371	58.6000	1	06/07/06
bis(2-chloroisopropyl)Ether		ND	ug/Kg dry	371	41.8000	1	06/07/06
bis(2-Ethylhexyl)phthalate		22800	ug/Kg dry	1850	246.0000	5	06/07/06
Butylbenzylphthalate	J	40.8	ug/Kg dry	371	38.8000	1	06/07/06
Carbazole		ND	ug/Kg dry	371	48.6000	1	06/07/06
Chrysene	J	172	ug/Kg dry	186	46.6000	1	06/07/06
Dibenzo(a,h)Anthracene		ND	ug/Kg dry	186	45.6000	1	06/07/06
Dibenzofuran		ND	ug/Kg dry	371	41.2000	1	06/07/06
Diethylphthalate		ND	ug/Kg dry	371	54.0000	1	06/07/06
Dimethylphthalate		ND	ug/Kg dry	371	51.2000	1	06/07/06
Di-n-butylphthalate		ND	ug/Kg dry	371	46.2000	1	06/07/06
Di-n-octylphthalate		ND	ug/Kg dry	371	50.6000	1	06/07/06
Fluoranthene	J	241	ug/Kg dry	371	44.6000	1	06/07/06
Fluorene		ND	ug/Kg dry	371	35.4000	1	06/07/06
Hexachlorobenzene		ND	ug/Kg dry	371	52.4000	1	06/07/06
Hexachlorobutadiene		ND	ug/Kg dry	371	68.4000	1	06/07/06
Hexachlorocyclopentadiene		ND	ug/Kg dry	1860	212.0000	1	06/07/06
Hexachloroethane		ND	ug/Kg dry	371	41.8000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	J	108	ug/Kg dry	371	53.4000	1	06/07/06
Isophorone		ND	ug/Kg dry	371	31.2000	1	06/07/06
Naphthalene		ND	ug/Kg dry	371	37.2000	1	06/07/06
Nitrobenzene		ND	ug/Kg dry	371	48.2000	1	06/07/06
N-Nitrosodimethylamine		ND	ug/Kg dry	371	62.8000	1	06/07/06
N-Nitroso-Di-n-Propylamine		ND	ug/Kg dry	371	45.8000	1	06/07/06
N-nitrosodiphenylamine		ND	ug/Kg dry	371	39.6000	1	06/07/06
Pentachlorophenol		ND	ug/Kg dry	1860	382.0000	1	06/07/06
Phenanthrene		ND	ug/Kg dry	371	51.0000	1	06/07/06
Phenol	J	147	ug/Kg dry	371	37.8000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-08 TP-06/0-6"  
Date Sampled: 05/30/06 11:15  
Percent Solids: 91  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-08  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	210	ug/Kg dry	371	34.6000	1	06/07/06
Pyridine		ND	ug/Kg dry	1860	83.8000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	58 %		30-130
Surrogate: 2,4,6-Tribromophenol	63 %		30-130
Surrogate: 2-Chlorophenol-d4	53 %		30-130
Surrogate: 2-Fluorobiphenyl	71 %		30-130
Surrogate: 2-Fluorophenol	55 %		30-130
Surrogate: Nitrobenzene-d5	65 %		30-130
Surrogate: Phenol-d6	54 %		30-130
Surrogate: p-Terphenyl-d14	85 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.9	6010B	1	SVD	05/31/06	1.76	100
Arsenic	2.5	mg/kg dry	1.7	7060A	5	SVD	06/03/06	1.76	100
Beryllium	0.22	mg/kg dry	0.07	6010B	1	SVD	05/31/06	1.76	100
Cadmium	ND	mg/kg dry	0.69	6010B	1	SVD	05/31/06	1.76	100
Chromium	4.4	mg/kg dry	1.4	6010B	1	SVD	05/31/06	1.76	100
Copper	5.8	mg/kg dry	1.4	6010B	1	SVD	05/31/06	1.76	100
Lead	36.2	mg/kg dry	6.9	6010B	1	SVD	05/31/06	1.76	100
Mercury	ND	mg/kg dry	0.039	7471A	1	EEM	06/01/06	0.63	40
Nickel	ND	mg/kg dry	3.5	6010B	1	SVD	05/31/06	1.76	100
Selenium	ND	mg/kg dry	6.9	6010B	1	SVD	05/31/06	1.76	100
Silver	ND	mg/kg dry	0.69	6010B	1	SVD	05/31/06	1.76	100
Thallium	ND	mg/kg dry	1.7	7841	5	JP	06/01/06	1.76	100
Zinc	12.2	mg/kg dry	3.5	6010B	1	SVD	05/31/06	1.76	100

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 16.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	133	85.4000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	66.7	56.0000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	66.7	24.0000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	66.7	66.8000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	334	266.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	66.7	24.0000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	6670	6400.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	133	61.4000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1670	544.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	667	133.4000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	667	168.2000	1	05/31/06
Acetone	ND	ug/Kg dry	1670	1134.0000	1	05/31/06
Benzene	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	66.7	40.0000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
Bromoform	ND	ug/Kg dry	66.7	29.4000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 16.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	133	26.6000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Chloroethane	ND	ug/Kg dry	133	80.0000	1	05/31/06
Chloroform	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Chloromethane	ND	ug/Kg dry	133	40.0000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	66.7	21.4000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	66.7	58.8000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	334	50.8000	1	05/31/06
Naphthalene	ND	ug/Kg dry	66.7	21.4000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	66.7	26.6000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
Styrene	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	66.7	37.4000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	334	266.0000	1	05/31/06
Toluene	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	66.7	42.8000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	66.7	32.0000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	66.7	29.4000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	66.7	34.8000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	334	50.8000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	66.7	32.0000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 16.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	66.7	24.0000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	133	64.0000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	200			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	97 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	104 %		70-130
Surrogate: Toluene-d8	100 %		70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	8.16	ug/Kg dry	6.10	1	06/04/06
4,4'-DDE	74.8	ug/Kg dry	30.5	5	06/05/06
4,4'-DDT	69.6	ug/Kg dry	30.5	5	06/05/06
Aldrin	ND	ug/Kg dry	6.10	1	06/04/06
alpha-BHC	ND	ug/Kg dry	6.10	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	6.10	1	06/04/06
beta-BHC	ND	ug/Kg dry	6.10	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	61.0	1	06/04/06
delta-BHC	ND	ug/Kg dry	6.10	1	06/04/06
Dieldrin	ND	ug/Kg dry	6.10	1	06/04/06
Endosulfan I	ND	ug/Kg dry	6.10	1	06/04/06
Endosulfan II	ND	ug/Kg dry	6.10	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	6.10	1	06/04/06
Endrin	ND	ug/Kg dry	6.10	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	6.10	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	6.10	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	6.10	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	6.10	1	06/04/06
Heptachlor	ND	ug/Kg dry	6.10	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	6.10	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	6.10	1	06/04/06
Methoxychlor	ND	ug/Kg dry	6.10	1	06/04/06
Toxaphene	ND	ug/Kg dry	305	1	06/04/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	90 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	82 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	71 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	75 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	60.9	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	80 %		30-150
Surrogate: Decachlorobiphenyl [2C]	98 %		30-150
Surrogate: Tetrachloro-m-xylene	82 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	83 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 30  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	30.5	1	06/03/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	60 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	412	42.0000	1	06/08/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	412	53.8000	1	06/08/06
1,2-Dichlorobenzene	ND	ug/Kg dry	412	46.4000	1	06/08/06
1,3-Dichlorobenzene	ND	ug/Kg dry	412	49.0000	1	06/08/06
1,4-Dichlorobenzene	ND	ug/Kg dry	412	46.2000	1	06/08/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	2060	56.8000	1	06/08/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	412	76.6000	1	06/08/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	412	43.0000	1	06/08/06
2,4-Dichlorophenol	ND	ug/Kg dry	412	48.2000	1	06/08/06
2,4-Dimethylphenol	ND	ug/Kg dry	412	34.6000	1	06/08/06
2,4-Dinitrophenol	ND	ug/Kg dry	2060	480.0000	1	06/08/06
2,4-Dinitrotoluene	ND	ug/Kg dry	412	61.8000	1	06/08/06
2,6-Dinitrotoluene	ND	ug/Kg dry	412	43.0000	1	06/08/06
2-Chloronaphthalene	ND	ug/Kg dry	412	44.4000	1	06/08/06
2-Chlorophenol	ND	ug/Kg dry	412	55.2000	1	06/08/06
2-Methylnaphthalene	ND	ug/Kg dry	412	40.8000	1	06/08/06
2-Methylphenol	ND	ug/Kg dry	412	29.6000	1	06/08/06
2-Nitroaniline	ND	ug/Kg dry	412	53.6000	1	06/08/06
2-Nitrophenol	ND	ug/Kg dry	412	44.2000	1	06/08/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	824	55.2000	1	06/08/06
3+4-Methylphenol	ND	ug/Kg dry	824	38.6000	1	06/08/06
3-Nitroaniline	ND	ug/Kg dry	412	52.0000	1	06/08/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	2060	50.4000	1	06/08/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	412	63.0000	1	06/08/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	412	55.6000	1	06/08/06
4-Chloroaniline	ND	ug/Kg dry	824	282.0000	1	06/08/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	412	47.2000	1	06/08/06
4-Nitroaniline	ND	ug/Kg dry	412	54.8000	1	06/08/06
4-Nitrophenol	ND	ug/Kg dry	2060	454.0000	1	06/08/06
Acenaphthene	ND	ug/Kg dry	412	60.6000	1	06/08/06
Acenaphthylene	ND	ug/Kg dry	412	39.8000	1	06/08/06
Acetophenone	ND	ug/Kg dry	824	530.0000	1	06/08/06
Aniline	ND	ug/Kg dry	2060	59.4000	1	06/08/06
Anthracene	ND	ug/Kg dry	412	46.8000	1	06/08/06
Azobenzene	ND	ug/Kg dry	412	86.2000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	81.2	ug/Kg dry	412	42.2000	1	06/08/06
Benzo(a)pyrene	J	92.3	ug/Kg dry	206	43.8000	1	06/08/06
Benzo(b)fluoranthene	J	101	ug/Kg dry	412	76.2000	1	06/08/06
Benzo(g,h,i)perylene	J	50.7	ug/Kg dry	412	48.2000	1	06/08/06
Benzo(k)fluoranthene	ND		ug/Kg dry	412	72.0000	1	06/08/06
Benzoic Acid	ND		ug/Kg dry	2060	520.0000	1	06/08/06
Benzyl Alcohol	ND		ug/Kg dry	412	49.2000	1	06/08/06
bis(2-Chloroethoxy)methane	ND		ug/Kg dry	412	34.6000	1	06/08/06
bis(2-Chloroethyl)ether	ND		ug/Kg dry	412	65.0000	1	06/08/06
bis(2-chloroisopropyl)Ether	ND		ug/Kg dry	412	46.4000	1	06/08/06
bis(2-Ethylhexyl)phthalate	J	148	ug/Kg dry	412	54.4000	1	06/08/06
Butylbenzylphthalate	ND		ug/Kg dry	412	43.0000	1	06/08/06
Carbazole	ND		ug/Kg dry	412	53.8000	1	06/08/06
Chrysene	J	154	ug/Kg dry	206	51.6000	1	06/08/06
Dibenzo(a,h)Anthracene	ND		ug/Kg dry	206	50.6000	1	06/08/06
Dibenzofuran	ND		ug/Kg dry	412	45.8000	1	06/08/06
Diethylphthalate	ND		ug/Kg dry	412	59.8000	1	06/08/06
Dimethylphthalate	ND		ug/Kg dry	412	56.8000	1	06/08/06
Di-n-butylphthalate	ND		ug/Kg dry	412	51.2000	1	06/08/06
Di-n-octylphthalate	ND		ug/Kg dry	412	56.2000	1	06/08/06
Fluoranthene	J	156	ug/Kg dry	412	49.4000	1	06/08/06
Fluorene	ND		ug/Kg dry	412	39.4000	1	06/08/06
Hexachlorobenzene	ND		ug/Kg dry	412	58.0000	1	06/08/06
Hexachlorobutadiene	ND		ug/Kg dry	412	75.8000	1	06/08/06
Hexachlorocyclopentadiene	ND		ug/Kg dry	2060	236.0000	1	06/08/06
Hexachloroethane	ND		ug/Kg dry	412	46.4000	1	06/08/06
Indeno(1,2,3-cd)Pyrene	ND		ug/Kg dry	412	59.4000	1	06/08/06
Isophorone	ND		ug/Kg dry	412	34.6000	1	06/08/06
Naphthalene	ND		ug/Kg dry	412	41.2000	1	06/08/06
Nitrobenzene	ND		ug/Kg dry	412	53.4000	1	06/08/06
N-Nitrosodimethylamine	ND		ug/Kg dry	412	69.8000	1	06/08/06
N-Nitroso-Di-n-Propylamine	ND		ug/Kg dry	412	51.0000	1	06/08/06
N-nitrosodiphenylamine	ND		ug/Kg dry	412	44.0000	1	06/08/06
Pentachlorophenol	ND		ug/Kg dry	2060	424.0000	1	06/08/06
Phenanthrene	J	131	ug/Kg dry	412	56.6000	1	06/08/06
Phenol	ND		ug/Kg dry	412	42.0000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-09 TP-07/0-6"  
Date Sampled: 05/30/06 11:45  
Percent Solids: 82  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-09  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/01/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	248	ug/Kg dry	412	38.4000	1	06/08/06
Pyridine		ND	ug/Kg dry	2060	93.0000	1	06/08/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	71 %		30-130
Surrogate: 2,4,6-Tribromophenol	87 %		30-130
Surrogate: 2-Chlorophenol-d4	66 %		30-130
Surrogate: 2-Fluorobiphenyl	83 %		30-130
Surrogate: 2-Fluorophenol	63 %		30-130
Surrogate: Nitrobenzene-d5	69 %		30-130
Surrogate: Phenol-d6	66 %		30-130
Surrogate: p-Terphenyl-d14	90 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.0	6010B	1	SVD	05/31/06	1.76	100
Arsenic	ND	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.76	100
<b>Beryllium</b>	<b>0.49</b>	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.76	100
Cadmium	ND	mg/kg dry	0.60	6010B	1	SVD	05/31/06	1.76	100
<b>Chromium</b>	<b>3.2</b>	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.76	100
<b>Copper</b>	<b>1.8</b>	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.76	100
Lead	ND	mg/kg dry	6.0	6010B	1	SVD	05/31/06	1.76	100
Mercury	ND	mg/kg dry	0.032	7471A	1	EEM	06/01/06	0.66	40
Nickel	ND	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.76	100
Selenium	ND	mg/kg dry	6.0	6010B	1	SVD	05/31/06	1.76	100
Silver	ND	mg/kg dry	0.60	6010B	1	SVD	05/31/06	1.76	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.76	100
<b>Zinc</b>	<b>24.5</b>	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.76	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 20  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	84.2	53.8000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	42.1	35.4000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	42.1	15.2000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	42.1	42.2000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	211	168.4000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	42.1	15.2000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	4210	4040.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	84.2	38.8000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1050	344.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	421	84.2000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	421	106.2000	1	05/31/06
Acetone	ND	ug/Kg dry	1050	716.0000	1	05/31/06
Benzene	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	42.1	25.2000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
Bromoform	ND	ug/Kg dry	42.1	18.6000	1	05/31/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 20  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	84.2	16.8000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Chloroethane	ND	ug/Kg dry	84.2	50.6000	1	05/31/06
Chloroform	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Chloromethane	ND	ug/Kg dry	84.2	25.2000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	42.1	13.4000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	42.1	37.0000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	211	32.0000	1	05/31/06
Naphthalene	ND	ug/Kg dry	42.1	13.4000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	42.1	16.8000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
Styrene	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	42.1	23.6000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	211	168.4000	1	05/31/06
Toluene	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	42.1	27.0000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	42.1	20.2000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	42.1	18.6000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	42.1	21.8000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	211	32.0000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	42.1	20.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 20  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	42.1	15.2000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	84.2	40.4000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	126			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	93 %		70-130
Surrogate: 4-Bromofluorobenzene	92 %		70-130
Surrogate: Dibromofluoromethane	98 %		70-130
Surrogate: Toluene-d8	95 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 20.1  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.24	1	06/04/06
<b>4,4'-DDE</b>	<b>6.21</b>	ug/Kg dry	5.24	1	06/04/06
4,4'-DDT	ND	ug/Kg dry	5.24	1	06/04/06
Aldrin	ND	ug/Kg dry	5.24	1	06/04/06
alpha-BHC	ND	ug/Kg dry	5.24	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	5.24	1	06/04/06
beta-BHC	ND	ug/Kg dry	5.24	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	52.4	1	06/04/06
delta-BHC	ND	ug/Kg dry	5.24	1	06/04/06
Dieldrin	ND	ug/Kg dry	5.24	1	06/04/06
Endosulfan I	ND	ug/Kg dry	5.24	1	06/04/06
Endosulfan II	ND	ug/Kg dry	5.24	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	5.24	1	06/04/06
Endrin	ND	ug/Kg dry	5.24	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	5.24	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	5.24	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.24	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	5.24	1	06/04/06
Heptachlor	ND	ug/Kg dry	5.24	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	5.24	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	5.24	1	06/04/06
Methoxychlor	ND	ug/Kg dry	5.24	1	06/04/06
Toxaphene	ND	ug/Kg dry	262	1	06/04/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	74 %		30-150
Surrogate: Decachlorobiphenyl [2C]	69 %		30-150
Surrogate: Tetrachloro-m-xylene	67 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	67 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 20.1  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	52.3	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	52.3	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	86 %		30-150
Surrogate: Decachlorobiphenyl [2C]	83 %		30-150
Surrogate: Tetrachloro-m-xylene	79 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	82 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	26.2	1	06/03/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	81 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 29.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	358	36.6000	1	06/08/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	358	46.8000	1	06/08/06
1,2-Dichlorobenzene	ND	ug/Kg dry	358	40.4000	1	06/08/06
1,3-Dichlorobenzene	ND	ug/Kg dry	358	42.6000	1	06/08/06
1,4-Dichlorobenzene	ND	ug/Kg dry	358	40.2000	1	06/08/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1790	49.4000	1	06/08/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	358	66.6000	1	06/08/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	358	37.4000	1	06/08/06
2,4-Dichlorophenol	ND	ug/Kg dry	358	41.8000	1	06/08/06
2,4-Dimethylphenol	ND	ug/Kg dry	358	30.0000	1	06/08/06
2,4-Dinitrophenol	ND	ug/Kg dry	1790	416.0000	1	06/08/06
2,4-Dinitrotoluene	ND	ug/Kg dry	358	53.8000	1	06/08/06
2,6-Dinitrotoluene	ND	ug/Kg dry	358	37.4000	1	06/08/06
2-Chloronaphthalene	ND	ug/Kg dry	358	38.6000	1	06/08/06
2-Chlorophenol	ND	ug/Kg dry	358	48.0000	1	06/08/06
2-Methylnaphthalene	ND	ug/Kg dry	358	35.4000	1	06/08/06
2-Methylphenol	ND	ug/Kg dry	358	25.8000	1	06/08/06
2-Nitroaniline	ND	ug/Kg dry	358	46.6000	1	06/08/06
2-Nitrophenol	ND	ug/Kg dry	358	38.4000	1	06/08/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	716	48.0000	1	06/08/06
3+4-Methylphenol	ND	ug/Kg dry	716	33.6000	1	06/08/06
3-Nitroaniline	ND	ug/Kg dry	358	45.2000	1	06/08/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1790	43.8000	1	06/08/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	358	54.8000	1	06/08/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	358	48.4000	1	06/08/06
4-Chloroaniline	ND	ug/Kg dry	716	246.0000	1	06/08/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	358	41.0000	1	06/08/06
4-Nitroaniline	ND	ug/Kg dry	358	47.6000	1	06/08/06
4-Nitrophenol	ND	ug/Kg dry	1790	394.0000	1	06/08/06
Acenaphthene	ND	ug/Kg dry	358	52.6000	1	06/08/06
Acenaphthylene	ND	ug/Kg dry	358	34.6000	1	06/08/06
Acetophenone	ND	ug/Kg dry	716	462.0000	1	06/08/06
Aniline	ND	ug/Kg dry	1790	51.6000	1	06/08/06
Anthracene	ND	ug/Kg dry	358	40.6000	1	06/08/06
Azobenzene	ND	ug/Kg dry	358	75.0000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 29.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	358	36.8000	1	06/08/06
Benzo(a)pyrene	ND	ug/Kg dry	179	38.0000	1	06/08/06
Benzo(b)fluoranthene	ND	ug/Kg dry	358	66.2000	1	06/08/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	358	41.8000	1	06/08/06
Benzo(k)fluoranthene	ND	ug/Kg dry	358	62.6000	1	06/08/06
Benzoic Acid	ND	ug/Kg dry	1790	452.0000	1	06/08/06
Benzyl Alcohol	ND	ug/Kg dry	358	42.8000	1	06/08/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	358	30.0000	1	06/08/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	358	56.4000	1	06/08/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	358	40.4000	1	06/08/06
<b>bis(2-Ethylhexyl)phthalate</b>	J 98.5	ug/Kg dry	358	47.2000	1	06/08/06
Butylbenzylphthalate	ND	ug/Kg dry	358	37.4000	1	06/08/06
Carbazole	ND	ug/Kg dry	358	46.8000	1	06/08/06
Chrysene	ND	ug/Kg dry	179	44.8000	1	06/08/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	179	44.0000	1	06/08/06
Dibenzofuran	ND	ug/Kg dry	358	39.8000	1	06/08/06
Diethylphthalate	ND	ug/Kg dry	358	52.0000	1	06/08/06
Dimethylphthalate	ND	ug/Kg dry	358	49.4000	1	06/08/06
Di-n-butylphthalate	ND	ug/Kg dry	358	44.4000	1	06/08/06
Di-n-octylphthalate	ND	ug/Kg dry	358	48.8000	1	06/08/06
Fluoranthene	ND	ug/Kg dry	358	43.0000	1	06/08/06
Fluorene	ND	ug/Kg dry	358	34.2000	1	06/08/06
Hexachlorobenzene	ND	ug/Kg dry	358	50.4000	1	06/08/06
Hexachlorobutadiene	ND	ug/Kg dry	358	66.0000	1	06/08/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1790	204.0000	1	06/08/06
Hexachloroethane	ND	ug/Kg dry	358	40.4000	1	06/08/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	358	51.6000	1	06/08/06
Isophorone	ND	ug/Kg dry	358	30.0000	1	06/08/06
Naphthalene	ND	ug/Kg dry	358	35.8000	1	06/08/06
Nitrobenzene	ND	ug/Kg dry	358	46.4000	1	06/08/06
N-Nitrosodimethylamine	ND	ug/Kg dry	358	60.6000	1	06/08/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	358	44.2000	1	06/08/06
N-nitrosodiphenylamine	ND	ug/Kg dry	358	38.2000	1	06/08/06
Pentachlorophenol	ND	ug/Kg dry	1790	368.0000	1	06/08/06
Phenanthrene	ND	ug/Kg dry	358	49.2000	1	06/08/06
Phenol	ND	ug/Kg dry	358	36.6000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-10 TP-08/0-6"  
Date Sampled: 05/30/06 11:50  
Percent Solids: 95  
Initial Volume: 29.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-10  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	ND	ug/Kg dry	358	33.2000	1	06/08/06
Pyridine	ND	ug/Kg dry	1790	80.8000	1	06/08/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	75 %		30-130
Surrogate: 2,4,6-Tribromophenol	80 %		30-130
Surrogate: 2-Chlorophenol-d4	70 %		30-130
Surrogate: 2-Fluorobiphenyl	83 %		30-130
Surrogate: 2-Fluorophenol	67 %		30-130
Surrogate: Nitrobenzene-d5	71 %		30-130
Surrogate: Phenol-d6	74 %		30-130
Surrogate: p-Terphenyl-d14	78 %		30-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.77	100
Arsenic	ND	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.77	100
<b>Beryllium</b>	<b>0.15</b>	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.77	100
Cadmium	ND	mg/kg dry	0.61	6010B	1	SVD	05/31/06	1.77	100
<b>Chromium</b>	<b>2.4</b>	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.77	100
<b>Copper</b>	<b>1.7</b>	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.77	100
Lead	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.77	100
Mercury	ND	mg/kg dry	0.030	7471A	1	EEM	06/01/06	0.71	40
Nickel	ND	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.77	100
Selenium	ND	mg/kg dry	6.1	6010B	1	SVD	05/31/06	1.77	100
Silver	ND	mg/kg dry	0.61	6010B	1	SVD	05/31/06	1.77	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.77	100
<b>Zinc</b>	<b>9.0</b>	mg/kg dry	3.0	6010B	1	SVD	05/31/06	1.77	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 21.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	83.6	53.6000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	41.8	35.2000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	41.8	15.0000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	41.8	41.8000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	209	167.2000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	41.8	15.0000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	4180	4020.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	83.6	38.4000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1050	342.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	418	83.6000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	418	105.4000	1	05/31/06
Acetone	ND	ug/Kg dry	1050	710.0000	1	05/31/06
Benzene	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	41.8	25.0000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
Bromoform	ND	ug/Kg dry	41.8	18.4000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 21.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	83.6	16.8000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Chloroethane	ND	ug/Kg dry	83.6	50.2000	1	05/31/06
Chloroform	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Chloromethane	ND	ug/Kg dry	83.6	25.0000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	41.8	13.4000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	41.8	36.8000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	209	31.8000	1	05/31/06
Naphthalene	ND	ug/Kg dry	41.8	13.4000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	41.8	16.8000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
Styrene	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	41.8	23.4000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	209	167.2000	1	05/31/06
Toluene	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	41.8	26.8000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	41.8	20.0000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	41.8	18.4000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	41.8	21.8000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	209	31.8000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	41.8	20.0000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
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Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 21.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	41.8	15.0000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	125			05/31/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	100 %		70-130
<i>Surrogate: 4-Bromofluorobenzene</i>	98 %		70-130
<i>Surrogate: Dibromofluoromethane</i>	107 %		70-130
<i>Surrogate: Toluene-d8</i>	102 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.38	1	06/05/06
4,4'-DDE	24.0	ug/Kg dry	5.38	1	06/05/06
4,4'-DDT	9.27	ug/Kg dry	5.38	1	06/05/06
Aldrin	ND	ug/Kg dry	5.38	1	06/05/06
alpha-BHC	ND	ug/Kg dry	5.38	1	06/05/06
alpha-Chlordane	ND	ug/Kg dry	5.38	1	06/05/06
beta-BHC	ND	ug/Kg dry	5.38	1	06/05/06
Chlordane (Total)	ND	ug/Kg dry	53.8	1	06/05/06
delta-BHC	ND	ug/Kg dry	5.38	1	06/05/06
Dieldrin	ND	ug/Kg dry	5.38	1	06/05/06
Endosulfan I	ND	ug/Kg dry	5.38	1	06/05/06
Endosulfan II	ND	ug/Kg dry	5.38	1	06/05/06
Endosulfan Sulfate	ND	ug/Kg dry	5.38	1	06/05/06
Endrin	ND	ug/Kg dry	5.38	1	06/05/06
Endrin Aldehyde	ND	ug/Kg dry	5.38	1	06/05/06
Endrin Ketone	ND	ug/Kg dry	5.38	1	06/05/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.38	1	06/05/06
gamma-Chlordane	ND	ug/Kg dry	5.38	1	06/05/06
Heptachlor	ND	ug/Kg dry	5.38	1	06/05/06
Heptachlor Epoxide	ND	ug/Kg dry	5.38	1	06/05/06
Hexachlorobenzene	ND	ug/Kg dry	5.38	1	06/05/06
Methoxychlor	ND	ug/Kg dry	5.38	1	06/05/06
Toxaphene	ND	ug/Kg dry	269	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	97 %		30-150
Surrogate: Decachlorobiphenyl [2C]	93 %		30-150
Surrogate: Tetrachloro-m-xylene	87 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	85 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

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Client Name: Vanasse Hangen Brustlin, Inc.  
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Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	53.7	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	53.7	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	101 %		30-150
Surrogate: Decachlorobiphenyl [2C]	104 %		30-150
Surrogate: Tetrachloro-m-xylene	88 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	93 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 30.7  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	26.3	1	06/03/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	75 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

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Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	363	37.0000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	363	47.6000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	363	41.0000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	363	43.2000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	363	40.8000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1820	50.2000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	363	67.6000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	363	38.0000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	363	42.6000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	363	30.6000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1820	422.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	363	54.4000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	363	38.0000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	363	39.2000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	363	48.6000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	363	36.0000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	363	26.2000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	363	47.2000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	363	39.0000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	727	48.6000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	727	34.0000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	363	45.8000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1820	44.4000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	363	55.6000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	363	49.0000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	727	248.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	363	41.6000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	363	48.4000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1820	400.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	363	53.4000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	363	35.0000	1	06/07/06
Acetophenone	ND	ug/Kg dry	727	468.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1820	52.4000	1	06/07/06
Anthracene	ND	ug/Kg dry	363	41.2000	1	06/07/06
Azobenzene	ND	ug/Kg dry	363	76.0000	1	06/07/06



# ESS Laboratory

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Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	363	37.2000	1	06/07/06
Benzo(a)pyrene	ND	ug/Kg dry	182	38.6000	1	06/07/06
<b>Benzo(b)fluoranthene</b>	J 144	ug/Kg dry	363	67.2000	1	06/07/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	363	42.6000	1	06/07/06
Benzo(k)fluoranthene	ND	ug/Kg dry	363	63.4000	1	06/07/06
Benzoic Acid	ND	ug/Kg dry	1820	460.0000	1	06/07/06
Benzyl Alcohol	ND	ug/Kg dry	363	43.4000	1	06/07/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	363	30.6000	1	06/07/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	363	57.4000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	363	41.0000	1	06/07/06
<b>bis(2-Ethylhexyl)phthalate</b>	J 106	ug/Kg dry	363	48.0000	1	06/07/06
Butylbenzylphthalate	ND	ug/Kg dry	363	38.0000	1	06/07/06
Carbazole	ND	ug/Kg dry	363	47.6000	1	06/07/06
Chrysene	ND	ug/Kg dry	182	45.6000	1	06/07/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	182	44.6000	1	06/07/06
Dibenzofuran	ND	ug/Kg dry	363	40.4000	1	06/07/06
Diethylphthalate	ND	ug/Kg dry	363	52.8000	1	06/07/06
Dimethylphthalate	ND	ug/Kg dry	363	50.2000	1	06/07/06
Di-n-butylphthalate	ND	ug/Kg dry	363	45.2000	1	06/07/06
Di-n-octylphthalate	ND	ug/Kg dry	363	49.4000	1	06/07/06
Fluoranthene	ND	ug/Kg dry	363	43.6000	1	06/07/06
Fluorene	ND	ug/Kg dry	363	34.6000	1	06/07/06
Hexachlorobenzene	ND	ug/Kg dry	363	51.2000	1	06/07/06
Hexachlorobutadiene	ND	ug/Kg dry	363	67.0000	1	06/07/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1820	208.0000	1	06/07/06
Hexachloroethane	ND	ug/Kg dry	363	41.0000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	363	52.4000	1	06/07/06
Isophorone	ND	ug/Kg dry	363	30.6000	1	06/07/06
Naphthalene	ND	ug/Kg dry	363	36.4000	1	06/07/06
Nitrobenzene	ND	ug/Kg dry	363	47.0000	1	06/07/06
N-Nitrosodimethylamine	ND	ug/Kg dry	363	61.4000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	363	44.8000	1	06/07/06
N-nitrosodiphenylamine	ND	ug/Kg dry	363	38.8000	1	06/07/06
Pentachlorophenol	ND	ug/Kg dry	1820	374.0000	1	06/07/06
Phenanthrene	ND	ug/Kg dry	363	50.0000	1	06/07/06
Phenol	ND	ug/Kg dry	363	37.0000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-11 TP-09/0-6"  
Date Sampled: 05/30/06 12:05  
Percent Solids: 93  
Initial Volume: 29.6  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-11  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	ND	ug/Kg dry	363	33.8000	1	06/07/06
Pyridine	ND	ug/Kg dry	1820	82.0000	1	06/07/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	71 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	82 %		30-130
<i>Surrogate: 2-Chlorophenol-d4</i>	66 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	83 %		30-130
<i>Surrogate: 2-Fluorophenol</i>	66 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	75 %		30-130
<i>Surrogate: Phenol-d6</i>	68 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	90 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	35.0	6010B	5	SVD	05/31/06	1.81	100
Arsenic	6.0	mg/kg dry	1.7	7060A	5	SVD	06/03/06	1.81	100
Beryllium	1.58	mg/kg dry	0.35	6010B	5	SVD	05/31/06	1.81	100
Cadmium	ND	mg/kg dry	3.50	6010B	5	SVD	05/31/06	1.81	100
Chromium	9.9	mg/kg dry	7.0	6010B	5	SVD	05/31/06	1.81	100
Copper	15.3	mg/kg dry	7.0	6010B	5	SVD	05/31/06	1.81	100
Lead	ND	mg/kg dry	35.0	6010B	5	SVD	05/31/06	1.81	100
Mercury	ND	mg/kg dry	0.040	7471A	1	EEM	06/01/06	0.63	40
Nickel	ND	mg/kg dry	17.5	6010B	5	SVD	05/31/06	1.81	100
Selenium	ND	mg/kg dry	35.0	6010B	5	SVD	05/31/06	1.81	100
Silver	ND	mg/kg dry	3.50	6010B	5	SVD	05/31/06	1.81	100
Thallium	ND	mg/kg dry	1.7	7841	5	JP	06/01/06	1.81	100
Zinc	110	mg/kg dry	17.5	6010B	5	SVD	05/31/06	1.81	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 13.5  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	167	107.0000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	83.6	70.2000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	83.6	30.2000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	83.6	83.6000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	418	334.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	83.6	30.2000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	8360	8020.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	167	77.0000	1	05/31/06
2-Butanone	ND	ug/Kg dry	2090	682.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	836	167.2000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	836	210.0000	1	05/31/06
Acetone	ND	ug/Kg dry	2090	1422.0000	1	05/31/06
Benzene	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	83.6	50.2000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
Bromoform	ND	ug/Kg dry	83.6	36.8000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 13.5  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	167	33.4000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Chloroethane	ND	ug/Kg dry	167	100.4000	1	05/31/06
Chloroform	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Chloromethane	ND	ug/Kg dry	167	50.2000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	83.6	26.8000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	83.6	73.6000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	418	63.6000	1	05/31/06
Naphthalene	ND	ug/Kg dry	83.6	26.8000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	83.6	33.4000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
Styrene	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	83.6	46.8000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	418	334.0000	1	05/31/06
Toluene	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	83.6	53.6000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	83.6	40.2000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	83.6	36.8000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	83.6	43.4000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	418	63.6000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	83.6	40.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 13.5  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	83.6	30.2000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	167	80.2000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	251			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	95 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	101 %		70-130
Surrogate: Toluene-d8	97 %		70-130

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 20.1  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	6.30	1	06/04/06
4,4'-DDE	121	ug/Kg dry	31.5	5	06/05/06
4,4'-DDT	76.4	ug/Kg dry	31.5	5	06/05/06
Aldrin	ND	ug/Kg dry	6.30	1	06/04/06
alpha-BHC	ND	ug/Kg dry	6.30	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	6.30	1	06/04/06
beta-BHC	ND	ug/Kg dry	6.30	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	63.0	1	06/04/06
delta-BHC	ND	ug/Kg dry	6.30	1	06/04/06
Dieldrin	ND	ug/Kg dry	6.30	1	06/04/06
Endosulfan I	ND	ug/Kg dry	6.30	1	06/04/06
Endosulfan II	ND	ug/Kg dry	6.30	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	6.30	1	06/04/06
Endrin	ND	ug/Kg dry	6.30	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	6.30	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	6.30	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	6.30	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	6.30	1	06/04/06
Heptachlor	ND	ug/Kg dry	6.30	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	6.30	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	6.30	1	06/04/06
Methoxychlor	ND	ug/Kg dry	6.30	1	06/04/06
Toxaphene	ND	ug/Kg dry	315	1	06/04/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	59 %		30-150
Surrogate: Decachlorobiphenyl [2C]	55 %		30-150
Surrogate: Tetrachloro-m-xylene	60 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	61 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 20.1  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	62.9	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	62.9	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	74 %		30-150
Surrogate: Decachlorobiphenyl [2C]	79 %		30-150
Surrogate: Tetrachloro-m-xylene	71 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	74 %		30-150



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 30.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	31.3	1	06/03/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	79 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	432	44.0000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	432	56.6000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	432	48.8000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	432	51.4000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	432	48.4000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	2160	59.6000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	432	80.4000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	432	45.2000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	432	50.6000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	432	36.2000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	2160	502.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	432	64.8000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	432	45.2000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	432	46.6000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	432	57.8000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	432	42.8000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	432	31.2000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	432	56.2000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	432	46.4000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	864	57.8000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	864	40.4000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	432	54.4000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	2160	52.8000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	432	66.0000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	432	58.4000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	864	296.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	432	49.6000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	432	57.6000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	2160	476.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	432	63.6000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	432	41.8000	1	06/07/06
Acetophenone	ND	ug/Kg dry	864	556.0000	1	06/07/06
Aniline	ND	ug/Kg dry	2160	62.2000	1	06/07/06
Anthracene	ND	ug/Kg dry	432	49.0000	1	06/07/06
Azobenzene	ND	ug/Kg dry	432	90.4000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	432	44.4000	1	06/07/06
Benzo(a)pyrene	ND	ug/Kg dry	216	45.8000	1	06/07/06
Benzo(b)fluoranthene	ND	ug/Kg dry	432	79.8000	1	06/07/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	432	50.6000	1	06/07/06
Benzo(k)fluoranthene	ND	ug/Kg dry	432	75.4000	1	06/07/06
Benzoic Acid	ND	ug/Kg dry	2160	546.0000	1	06/07/06
Benzyl Alcohol	ND	ug/Kg dry	432	51.6000	1	06/07/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	432	36.2000	1	06/07/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	432	68.2000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	432	48.8000	1	06/07/06
<b>bis(2-Ethylhexyl)phthalate</b>	<b>J 76.0</b>	ug/Kg dry	432	57.0000	1	06/07/06
Butylbenzylphthalate	ND	ug/Kg dry	432	45.2000	1	06/07/06
Carbazole	ND	ug/Kg dry	432	56.6000	1	06/07/06
Chrysene	ND	ug/Kg dry	216	54.2000	1	06/07/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	216	53.2000	1	06/07/06
Dibenzofuran	ND	ug/Kg dry	432	48.0000	1	06/07/06
Diethylphthalate	ND	ug/Kg dry	432	62.8000	1	06/07/06
Dimethylphthalate	ND	ug/Kg dry	432	59.6000	1	06/07/06
Di-n-butylphthalate	ND	ug/Kg dry	432	53.6000	1	06/07/06
Di-n-octylphthalate	ND	ug/Kg dry	432	58.8000	1	06/07/06
Fluoranthene	ND	ug/Kg dry	432	51.8000	1	06/07/06
Fluorene	ND	ug/Kg dry	432	41.2000	1	06/07/06
Hexachlorobenzene	ND	ug/Kg dry	432	61.0000	1	06/07/06
Hexachlorobutadiene	ND	ug/Kg dry	432	79.6000	1	06/07/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	2160	246.0000	1	06/07/06
Hexachloroethane	ND	ug/Kg dry	432	48.8000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	432	62.2000	1	06/07/06
Isophorone	ND	ug/Kg dry	432	36.2000	1	06/07/06
Naphthalene	ND	ug/Kg dry	432	43.2000	1	06/07/06
Nitrobenzene	ND	ug/Kg dry	432	56.0000	1	06/07/06
N-Nitrosodimethylamine	ND	ug/Kg dry	432	73.0000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	432	53.4000	1	06/07/06
N-nitrosodiphenylamine	ND	ug/Kg dry	432	46.2000	1	06/07/06
Pentachlorophenol	ND	ug/Kg dry	2160	444.0000	1	06/07/06
Phenanthrene	ND	ug/Kg dry	432	59.4000	1	06/07/06
Phenol	ND	ug/Kg dry	432	44.0000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-12 TP-10/0-6"  
Date Sampled: 05/30/06 13:05  
Percent Solids: 79  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-12  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	ND	ug/Kg dry	432	40.2000	1	06/07/06
Pyridine	ND	ug/Kg dry	2160	97.4000	1	06/07/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	73 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	77 %		30-130
<i>Surrogate: 2-Chlorophenol-d4</i>	66 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	83 %		30-130
<i>Surrogate: 2-Fluorophenol</i>	67 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	77 %		30-130
<i>Surrogate: Phenol-d6</i>	68 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	81 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.8	100
Arsenic	4.5	mg/kg dry	1.6	7060A	5	SVD	06/03/06	1.8	100
Beryllium	0.37	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.8	100
Cadmium	ND	mg/kg dry	0.62	6010B	1	SVD	05/31/06	1.8	100
Chromium	6.0	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.8	100
Copper	17.3	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.8	100
Lead	7.2	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.8	100
Mercury	ND	mg/kg dry	0.036	7471A	1	EEM	06/01/06	0.62	40
Nickel	3.5	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.8	100
Selenium	ND	mg/kg dry	6.2	6010B	1	SVD	05/31/06	1.8	100
Silver	ND	mg/kg dry	0.62	6010B	1	SVD	05/31/06	1.8	100
Thallium	ND	mg/kg dry	1.6	7841	5	JP	06/01/06	1.8	100
Zinc	14.3	mg/kg dry	3.1	6010B	1	SVD	05/31/06	1.8	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 16.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	116	74.4000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	58.2	48.8000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	58.2	21.0000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	58.2	58.2000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	291	232.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	58.2	21.0000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	5820	5580.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	116	53.6000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1450	474.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	582	116.4000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	582	146.6000	1	05/31/06
Acetone	ND	ug/Kg dry	1450	990.0000	1	05/31/06
Benzene	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	58.2	35.0000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
Bromoform	ND	ug/Kg dry	58.2	25.6000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 16.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	116	23.2000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Chloroethane	ND	ug/Kg dry	116	69.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Chloromethane	ND	ug/Kg dry	116	35.0000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	58.2	18.6000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	58.2	51.2000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	291	44.2000	1	05/31/06
Naphthalene	ND	ug/Kg dry	58.2	18.6000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	58.2	23.2000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
Styrene	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	58.2	32.6000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	291	232.0000	1	05/31/06
Toluene	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	58.2	37.2000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	58.2	28.0000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	58.2	25.6000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	58.2	30.2000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	291	44.2000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	58.2	28.0000	1	05/31/06

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Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	58.2	21.0000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	116	55.8000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	174			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	92 %		70-130
Surrogate: 4-Bromofluorobenzene	91 %		70-130
Surrogate: Dibromofluoromethane	98 %		70-130
Surrogate: Toluene-d8	95 %		70-130



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Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	8.63	ug/Kg dry	5.62	1	06/04/06
4,4'-DDE	140	ug/Kg dry	28.1	5	06/05/06
4,4'-DDT	124	ug/Kg dry	28.1	5	06/05/06
Aldrin	ND	ug/Kg dry	5.62	1	06/04/06
alpha-BHC	ND	ug/Kg dry	5.62	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	5.62	1	06/04/06
beta-BHC	ND	ug/Kg dry	5.62	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	56.2	1	06/04/06
delta-BHC	ND	ug/Kg dry	5.62	1	06/04/06
Dieldrin	ND	ug/Kg dry	5.62	1	06/04/06
Endosulfan I	ND	ug/Kg dry	5.62	1	06/04/06
Endosulfan II	ND	ug/Kg dry	5.62	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	5.62	1	06/04/06
Endrin	ND	ug/Kg dry	5.62	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	5.62	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	5.62	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.62	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	5.62	1	06/04/06
Heptachlor	ND	ug/Kg dry	5.62	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	5.62	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	5.62	1	06/04/06
Methoxychlor	ND	ug/Kg dry	5.62	1	06/04/06
Toxaphene	ND	ug/Kg dry	281	1	06/04/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	73 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	70 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	73 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	74 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	56.1	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	56.1	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	89 %		30-150
Surrogate: Decachlorobiphenyl [2C]	91 %		30-150
Surrogate: Tetrachloro-m-xylene	83 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	86 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 30.9  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	27.3	1	06/03/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	88 %		40-140

# ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	373	38.0000	1	06/08/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	373	48.8000	1	06/08/06
1,2-Dichlorobenzene	ND	ug/Kg dry	373	42.2000	1	06/08/06
1,3-Dichlorobenzene	ND	ug/Kg dry	373	44.4000	1	06/08/06
1,4-Dichlorobenzene	ND	ug/Kg dry	373	41.8000	1	06/08/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1870	51.6000	1	06/08/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	373	69.4000	1	06/08/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	373	39.0000	1	06/08/06
2,4-Dichlorophenol	ND	ug/Kg dry	373	43.6000	1	06/08/06
2,4-Dimethylphenol	ND	ug/Kg dry	373	31.4000	1	06/08/06
2,4-Dinitrophenol	ND	ug/Kg dry	1870	434.0000	1	06/08/06
2,4-Dinitrotoluene	ND	ug/Kg dry	373	56.0000	1	06/08/06
2,6-Dinitrotoluene	ND	ug/Kg dry	373	39.0000	1	06/08/06
2-Chloronaphthalene	ND	ug/Kg dry	373	40.4000	1	06/08/06
2-Chlorophenol	ND	ug/Kg dry	373	50.0000	1	06/08/06
2-Methylnaphthalene	ND	ug/Kg dry	373	37.0000	1	06/08/06
2-Methylphenol	ND	ug/Kg dry	373	26.8000	1	06/08/06
2-Nitroaniline	ND	ug/Kg dry	373	48.6000	1	06/08/06
2-Nitrophenol	ND	ug/Kg dry	373	40.0000	1	06/08/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	747	50.0000	1	06/08/06
3+4-Methylphenol	ND	ug/Kg dry	747	35.0000	1	06/08/06
3-Nitroaniline	ND	ug/Kg dry	373	47.0000	1	06/08/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1870	45.6000	1	06/08/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	373	57.2000	1	06/08/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	373	50.4000	1	06/08/06
4-Chloroaniline	ND	ug/Kg dry	747	256.0000	1	06/08/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	373	42.8000	1	06/08/06
4-Nitroaniline	ND	ug/Kg dry	373	49.8000	1	06/08/06
4-Nitrophenol	ND	ug/Kg dry	1870	410.0000	1	06/08/06
Acenaphthene	ND	ug/Kg dry	373	54.8000	1	06/08/06
Acenaphthylene	ND	ug/Kg dry	373	36.0000	1	06/08/06
Acetophenone	ND	ug/Kg dry	747	480.0000	1	06/08/06
Aniline	ND	ug/Kg dry	1870	53.8000	1	06/08/06
Anthracene	ND	ug/Kg dry	373	42.4000	1	06/08/06
Azobenzene	ND	ug/Kg dry	373	78.2000	1	06/08/06

# ESS Laboratory

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## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	ug/Kg dry	373	38.2000	1	06/08/06
Benzo(a)pyrene	ND	ug/Kg dry	187	39.6000	1	06/08/06
Benzo(b)fluoranthene	ND	ug/Kg dry	373	69.0000	1	06/08/06
Benzo(g,h,i)perylene	ND	ug/Kg dry	373	43.6000	1	06/08/06
Benzo(k)fluoranthene	ND	ug/Kg dry	373	65.2000	1	06/08/06
Benzoic Acid	ND	ug/Kg dry	1870	472.0000	1	06/08/06
Benzyl Alcohol	ND	ug/Kg dry	373	44.6000	1	06/08/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	373	31.4000	1	06/08/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	373	59.0000	1	06/08/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	373	42.2000	1	06/08/06
<b>bis(2-Ethylhexyl)phthalate</b>	<b>J 129</b>	ug/Kg dry	373	49.2000	1	06/08/06
Butylbenzylphthalate	ND	ug/Kg dry	373	39.0000	1	06/08/06
Carbazole	ND	ug/Kg dry	373	48.8000	1	06/08/06
Chrysene	ND	ug/Kg dry	187	46.8000	1	06/08/06
Dibenzo(a,h)Anthracene	ND	ug/Kg dry	187	46.0000	1	06/08/06
Dibenzofuran	ND	ug/Kg dry	373	41.4000	1	06/08/06
Diethylphthalate	ND	ug/Kg dry	373	54.2000	1	06/08/06
Dimethylphthalate	ND	ug/Kg dry	373	51.6000	1	06/08/06
Di-n-butylphthalate	ND	ug/Kg dry	373	46.4000	1	06/08/06
Di-n-octylphthalate	ND	ug/Kg dry	373	50.8000	1	06/08/06
Fluoranthene	ND	ug/Kg dry	373	44.8000	1	06/08/06
Fluorene	ND	ug/Kg dry	373	35.6000	1	06/08/06
Hexachlorobenzene	ND	ug/Kg dry	373	52.6000	1	06/08/06
Hexachlorobutadiene	ND	ug/Kg dry	373	68.8000	1	06/08/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1870	212.0000	1	06/08/06
Hexachloroethane	ND	ug/Kg dry	373	42.2000	1	06/08/06
Indeno(1,2,3-cd)Pyrene	ND	ug/Kg dry	373	53.8000	1	06/08/06
Isophorone	ND	ug/Kg dry	373	31.4000	1	06/08/06
Naphthalene	ND	ug/Kg dry	373	37.4000	1	06/08/06
Nitrobenzene	ND	ug/Kg dry	373	48.4000	1	06/08/06
N-Nitrosodimethylamine	ND	ug/Kg dry	373	63.2000	1	06/08/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	373	46.2000	1	06/08/06
N-nitrosodiphenylamine	ND	ug/Kg dry	373	39.8000	1	06/08/06
Pentachlorophenol	ND	ug/Kg dry	1870	384.0000	1	06/08/06
Phenanthrene	ND	ug/Kg dry	373	51.2000	1	06/08/06
Phenol	ND	ug/Kg dry	373	38.0000	1	06/08/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-13 TP-10/0.5-1  
Date Sampled: 05/30/06 13:10  
Percent Solids: 89  
Initial Volume: 30.1  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-13  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	ND	ug/Kg dry	373	34.8000	1	06/08/06
Pyridine	ND	ug/Kg dry	1870	84.2000	1	06/08/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	86 %		30-130
Surrogate: 2,4,6-Tribromophenol	93 %		30-130
Surrogate: 2-Chlorophenol-d4	81 %		30-130
Surrogate: 2-Fluorobiphenyl	93 %		30-130
Surrogate: 2-Fluorophenol	79 %		30-130
Surrogate: Nitrobenzene-d5	82 %		30-130
Surrogate: Phenol-d6	85 %		30-130
Surrogate: p-Terphenyl-d14	90 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.9	6010B	1	SVD	05/31/06	1.75	100
Arsenic	ND	mg/kg dry	1.5	7060A	5	SVD	06/03/06	1.75	100
<b>Beryllium</b>	<b>0.20</b>	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.75	100
Cadmium	ND	mg/kg dry	0.59	6010B	1	SVD	05/31/06	1.75	100
<b>Chromium</b>	<b>3.0</b>	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.75	100
<b>Copper</b>	<b>3.8</b>	mg/kg dry	1.2	6010B	1	SVD	05/31/06	1.75	100
Lead	ND	mg/kg dry	5.9	6010B	1	SVD	05/31/06	1.75	100
Mercury	ND	mg/kg dry	0.030	7471A	1	EEM	06/01/06	0.69	40
Nickel	ND	mg/kg dry	2.9	6010B	1	SVD	05/31/06	1.75	100
Selenium	ND	mg/kg dry	5.9	6010B	1	SVD	05/31/06	1.75	100
Silver	ND	mg/kg dry	0.59	6010B	1	SVD	05/31/06	1.75	100
Thallium	ND	mg/kg dry	1.5	7841	5	JP	06/01/06	1.75	100
<b>Zinc</b>	<b>14.2</b>	mg/kg dry	2.9	6010B	1	SVD	05/31/06	1.75	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 27.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	59.5	38.0000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	29.8	25.0000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	29.8	10.8000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	29.8	29.8000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	149	119.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	29.8	10.8000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	2980	2860.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	59.5	27.4000	1	05/31/06
2-Butanone	ND	ug/Kg dry	744	242.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	298	59.6000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	298	75.0000	1	05/31/06
Acetone	ND	ug/Kg dry	744	506.0000	1	05/31/06
Benzene	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	29.8	17.8000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
Bromoform	ND	ug/Kg dry	29.8	13.0000	1	05/31/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 27.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	59.5	12.0000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Chloroethane	ND	ug/Kg dry	59.5	35.8000	1	05/31/06
Chloroform	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Chloromethane	ND	ug/Kg dry	59.5	17.8000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	29.8	9.6000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	29.8	26.2000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	149	22.6000	1	05/31/06
Naphthalene	ND	ug/Kg dry	29.8	9.6000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	29.8	12.0000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
Styrene	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	29.8	16.6000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	149	119.0000	1	05/31/06
Toluene	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	29.8	19.0000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	29.8	14.2000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	29.8	13.0000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	29.8	15.4000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	149	22.6000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	29.8	14.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 27.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	29.8	10.8000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	59.5	28.6000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	89.3			05/31/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	89 %		70-130
<i>Surrogate: 4-Bromofluorobenzene</i>	93 %		70-130
<i>Surrogate: Dibromofluoromethane</i>	98 %		70-130
<i>Surrogate: Toluene-d8</i>	95 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.15	1	06/04/06
4,4'-DDE	ND	ug/Kg dry	5.15	1	06/04/06
4,4'-DDT	ND	ug/Kg dry	5.15	1	06/04/06
Aldrin	ND	ug/Kg dry	5.15	1	06/04/06
alpha-BHC	ND	ug/Kg dry	5.15	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	5.15	1	06/04/06
beta-BHC	ND	ug/Kg dry	5.15	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	51.5	1	06/04/06
delta-BHC	ND	ug/Kg dry	5.15	1	06/04/06
Dieldrin	ND	ug/Kg dry	5.15	1	06/04/06
Endosulfan I	ND	ug/Kg dry	5.15	1	06/04/06
Endosulfan II	ND	ug/Kg dry	5.15	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	5.15	1	06/04/06
Endrin	ND	ug/Kg dry	5.15	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	5.15	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	5.15	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.15	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	5.15	1	06/04/06
Heptachlor	ND	ug/Kg dry	5.15	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	5.15	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	5.15	1	06/04/06
Methoxychlor	ND	ug/Kg dry	5.15	1	06/04/06
Toxaphene	ND	ug/Kg dry	258	1	06/04/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	76 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	71 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	80 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	82 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	51.5	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	51.5	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	72 %		30-150
Surrogate: Decachlorobiphenyl [2C]	84 %		30-150
Surrogate: Tetrachloro-m-xylene	80 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	84 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 30.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	25.4	1	06/05/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: O-Terphenyl</i>	86 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 30.2  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	341	34.8000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	341	44.6000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	341	38.6000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	341	40.6000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	341	38.4000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1710	47.2000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	341	63.4000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	341	35.6000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	341	40.0000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	341	28.6000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1710	396.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	341	51.2000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	341	35.6000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	341	36.8000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	341	45.6000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	341	33.8000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	341	24.6000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	341	44.4000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	341	36.6000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	683	45.6000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	683	32.0000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	341	43.0000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1710	41.8000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	341	52.2000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	341	46.0000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	683	234.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	341	39.2000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	341	45.4000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1710	376.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	341	50.2000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	341	33.0000	1	06/07/06
Acetophenone	ND	ug/Kg dry	683	440.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1710	49.2000	1	06/07/06
Anthracene	ND	ug/Kg dry	341	38.8000	1	06/07/06
Azobenzene	ND	ug/Kg dry	341	71.4000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 30.2  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	74.1	ug/Kg dry	341	35.0000	1	06/07/06
Benzo(a)pyrene	J	92.5	ug/Kg dry	171	36.2000	1	06/07/06
Benzo(b)fluoranthene	J	220	ug/Kg dry	341	63.0000	1	06/07/06
Benzo(g,h,i)perylene	J	49.2	ug/Kg dry	341	40.0000	1	06/07/06
Benzo(k)fluoranthene	J	70.3	ug/Kg dry	341	59.6000	1	06/07/06
Benzoic Acid	ND		ug/Kg dry	1710	432.0000	1	06/07/06
Benzyl Alcohol	ND		ug/Kg dry	341	40.8000	1	06/07/06
bis(2-Chloroethoxy)methane	ND		ug/Kg dry	341	28.6000	1	06/07/06
bis(2-Chloroethyl)ether	ND		ug/Kg dry	341	53.8000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND		ug/Kg dry	341	38.6000	1	06/07/06
bis(2-Ethylhexyl)phthalate	J	109	ug/Kg dry	341	45.0000	1	06/07/06
Butylbenzylphthalate	ND		ug/Kg dry	341	35.6000	1	06/07/06
Carbazole	ND		ug/Kg dry	341	44.6000	1	06/07/06
Chrysene	J	102	ug/Kg dry	171	42.8000	1	06/07/06
Dibenzo(a,h)Anthracene	ND		ug/Kg dry	171	42.0000	1	06/07/06
Dibenzofuran	ND		ug/Kg dry	341	37.8000	1	06/07/06
Diethylphthalate	ND		ug/Kg dry	341	49.6000	1	06/07/06
Dimethylphthalate	ND		ug/Kg dry	341	47.2000	1	06/07/06
Di-n-butylphthalate	ND		ug/Kg dry	341	42.4000	1	06/07/06
Di-n-octylphthalate	ND		ug/Kg dry	341	46.4000	1	06/07/06
Fluoranthene	J	258	ug/Kg dry	341	41.0000	1	06/07/06
Fluorene	ND		ug/Kg dry	341	32.6000	1	06/07/06
Hexachlorobenzene	ND		ug/Kg dry	341	48.2000	1	06/07/06
Hexachlorobutadiene	ND		ug/Kg dry	341	62.8000	1	06/07/06
Hexachlorocyclopentadiene	ND		ug/Kg dry	1710	194.8000	1	06/07/06
Hexachloroethane	ND		ug/Kg dry	341	38.6000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	J	49.2	ug/Kg dry	341	49.2000	1	06/07/06
Isophorone	ND		ug/Kg dry	341	28.6000	1	06/07/06
Naphthalene	ND		ug/Kg dry	341	34.2000	1	06/07/06
Nitrobenzene	ND		ug/Kg dry	341	44.2000	1	06/07/06
N-Nitrosodimethylamine	ND		ug/Kg dry	341	57.8000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND		ug/Kg dry	341	42.2000	1	06/07/06
N-nitrosodiphenylamine	ND		ug/Kg dry	341	36.4000	1	06/07/06
Pentachlorophenol	ND		ug/Kg dry	1710	352.0000	1	06/07/06
Phenanthrene	J	169	ug/Kg dry	341	47.0000	1	06/07/06
Phenol	ND		ug/Kg dry	341	34.8000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-14 TP-11/0-6"  
Date Sampled: 05/30/06 13:20  
Percent Solids: 97  
Initial Volume: 30.2  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-14  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	150	ug/Kg dry	341	31.8000	1	06/07/06
Pyridine		ND	ug/Kg dry	1710	77.0000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	79 %		30-130
Surrogate: 2,4,6-Tribromophenol	85 %		30-130
Surrogate: 2-Chlorophenol-d4	72 %		30-130
Surrogate: 2-Fluorobiphenyl	93 %		30-130
Surrogate: 2-Fluorophenol	73 %		30-130
Surrogate: Nitrobenzene-d5	85 %		30-130
Surrogate: Phenol-d6	74 %		30-130
Surrogate: p-Terphenyl-d14	77 %		30-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.6	6010B	1	SVD	05/31/06	1.9	100
Arsenic	5.7	mg/kg dry	1.6	7060A	5	SVD	06/03/06	1.9	100
Beryllium	0.42	mg/kg dry	0.07	6010B	1	SVD	05/31/06	1.9	100
Cadmium	ND	mg/kg dry	0.66	6010B	1	SVD	05/31/06	1.9	100
Chromium	8.5	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.9	100
Copper	23.0	mg/kg dry	1.3	6010B	1	SVD	05/31/06	1.9	100
Lead	21.4	mg/kg dry	6.6	6010B	1	SVD	05/31/06	1.9	100
Mercury	ND	mg/kg dry	0.040	7471A	1	EEM	06/01/06	0.62	40
Nickel	4.9	mg/kg dry	3.3	6010B	1	SVD	05/31/06	1.9	100
Selenium	ND	mg/kg dry	6.6	6010B	1	SVD	05/31/06	1.9	100
Silver	ND	mg/kg dry	0.66	6010B	1	SVD	05/31/06	1.9	100
Thallium	ND	mg/kg dry	1.6	7841	5	JP	06/01/06	1.9	100
Zinc	33.5	mg/kg dry	3.3	6010B	1	SVD	05/31/06	1.9	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 16.7  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	137	87.8000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg dry	68.6	57.6000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg dry	68.6	24.8000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg dry	68.6	68.6000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	343	274.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg dry	68.6	24.8000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg dry	6860	6580.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg dry	137	63.2000	1	05/31/06
2-Butanone	ND	ug/Kg dry	1720	560.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
2-Hexanone	ND	ug/Kg dry	686	137.2000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	686	173.0000	1	05/31/06
Acetone	ND	ug/Kg dry	1720	1166.0000	1	05/31/06
Benzene	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
Bromobenzene	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
Bromochloromethane	ND	ug/Kg dry	68.6	41.2000	1	05/31/06
Bromodichloromethane	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
Bromoform	ND	ug/Kg dry	68.6	30.2000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 16.7  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	137	27.4000	1	05/31/06
Carbon Disulfide	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
Chlorobenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Chloroethane	ND	ug/Kg dry	137	82.4000	1	05/31/06
Chloroform	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Chloromethane	ND	ug/Kg dry	137	41.2000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
Dibromochloromethane	ND	ug/Kg dry	68.6	22.0000	1	05/31/06
Dibromomethane	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Diethyl Ether	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
Ethylbenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg dry	68.6	60.4000	1	05/31/06
Isopropylbenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Methylene Chloride	ND	ug/Kg dry	343	52.2000	1	05/31/06
Naphthalene	ND	ug/Kg dry	68.6	22.0000	1	05/31/06
n-Butylbenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
n-Propylbenzene	ND	ug/Kg dry	68.6	27.4000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
Styrene	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	68.6	38.4000	1	05/31/06
Tetrachloroethene	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg dry	343	274.0000	1	05/31/06
Toluene	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	68.6	44.0000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	68.6	33.0000	1	05/31/06
Trichloroethene	ND	ug/Kg dry	68.6	30.2000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg dry	68.6	35.6000	1	05/31/06
Vinyl Acetate	ND	ug/Kg dry	343	52.2000	1	05/31/06
Vinyl Chloride	ND	ug/Kg dry	68.6	33.0000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 16.7  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	68.6	24.8000	1	05/31/06
Xylene P,M	ND	ug/Kg dry	137	65.8000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	206			05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	102 %		70-130
Surrogate: 4-Bromofluorobenzene	103 %		70-130
Surrogate: Dibromofluoromethane	108 %		70-130
Surrogate: Toluene-d8	105 %		70-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	6.25	1	06/04/06
4,4'-DDE	201	ug/Kg dry	62.5	10	06/05/06
4,4'-DDT	204	ug/Kg dry	62.5	10	06/05/06
Aldrin	ND	ug/Kg dry	6.25	1	06/04/06
alpha-BHC	ND	ug/Kg dry	6.25	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	6.25	1	06/04/06
beta-BHC	ND	ug/Kg dry	6.25	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	62.5	1	06/04/06
delta-BHC	ND	ug/Kg dry	6.25	1	06/04/06
Dieldrin	ND	ug/Kg dry	6.25	1	06/04/06
Endosulfan I	ND	ug/Kg dry	6.25	1	06/04/06
Endosulfan II	ND	ug/Kg dry	6.25	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	6.25	1	06/04/06
Endrin	ND	ug/Kg dry	6.25	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	6.25	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	6.25	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	6.25	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	6.25	1	06/04/06
Heptachlor	ND	ug/Kg dry	6.25	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	6.25	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	6.25	1	06/04/06
Methoxychlor	ND	ug/Kg dry	6.25	1	06/04/06
Toxaphene	ND	ug/Kg dry	312	1	06/04/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	58 %		30-150
Surrogate: Decachlorobiphenyl [2C]	57 %		30-150
Surrogate: Tetrachloro-m-xylene	60 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	63 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	62.4	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	62.4	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	61 %		30-150
Surrogate: Decachlorobiphenyl [2C]	74 %		30-150
Surrogate: Tetrachloro-m-xylene	69 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	70 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 29.5  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	31.8	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	85 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	426	43.6000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	426	55.8000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	426	48.2000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	426	50.6000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	426	47.8000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	2140	58.8000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	426	79.4000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	426	44.6000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	426	50.0000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	426	35.8000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	2140	496.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	426	64.0000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	426	44.6000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	426	46.0000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	426	57.0000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	426	42.2000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	426	30.8000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	426	55.6000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	426	45.8000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	854	57.0000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	854	40.0000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	426	53.8000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	2140	52.2000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	426	65.2000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	426	57.6000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	854	292.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	426	48.8000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	426	56.8000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	2140	470.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	426	62.8000	1	06/07/06
Acenaphthylene	J 59.7	ug/Kg dry	426	41.2000	1	06/07/06
Acetophenone	ND	ug/Kg dry	854	550.0000	1	06/07/06
Aniline	ND	ug/Kg dry	2140	61.4000	1	06/07/06
Anthracene	J 49.1	ug/Kg dry	426	48.4000	1	06/07/06
Azobenzene	ND	ug/Kg dry	426	89.4000	1	06/07/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	393	ug/Kg dry	426	43.8000	1	06/07/06
Benzo(a)pyrene		382	ug/Kg dry	214	45.4000	1	06/07/06
Benzo(b)fluoranthene		564	ug/Kg dry	426	78.8000	1	06/07/06
Benzo(g,h,i)perylene	J	304	ug/Kg dry	426	50.0000	1	06/07/06
Benzo(k)fluoranthene	J	266	ug/Kg dry	426	74.4000	1	06/07/06
Benzoic Acid		ND	ug/Kg dry	2140	540.0000	1	06/07/06
Benzyl Alcohol		ND	ug/Kg dry	426	51.0000	1	06/07/06
bis(2-Chloroethoxy)methane		ND	ug/Kg dry	426	35.8000	1	06/07/06
bis(2-Chloroethyl)ether		ND	ug/Kg dry	426	67.4000	1	06/07/06
bis(2-chloroisopropyl)Ether		ND	ug/Kg dry	426	48.2000	1	06/07/06
bis(2-Ethylhexyl)phthalate	J	135	ug/Kg dry	426	56.4000	1	06/07/06
Butylbenzylphthalate		ND	ug/Kg dry	426	44.6000	1	06/07/06
Carbazole		ND	ug/Kg dry	426	55.8000	1	06/07/06
Chrysene		481	ug/Kg dry	214	53.4000	1	06/07/06
Dibenzo(a,h)Anthracene		ND	ug/Kg dry	214	52.4000	1	06/07/06
Dibenzofuran		ND	ug/Kg dry	426	47.4000	1	06/07/06
Diethylphthalate		ND	ug/Kg dry	426	62.0000	1	06/07/06
Dimethylphthalate		ND	ug/Kg dry	426	58.8000	1	06/07/06
Di-n-butylphthalate		ND	ug/Kg dry	426	53.0000	1	06/07/06
Di-n-octylphthalate		ND	ug/Kg dry	426	58.2000	1	06/07/06
Fluoranthene		857	ug/Kg dry	426	51.2000	1	06/07/06
Fluorene		ND	ug/Kg dry	426	40.6000	1	06/07/06
Hexachlorobenzene		ND	ug/Kg dry	426	60.2000	1	06/07/06
Hexachlorobutadiene		ND	ug/Kg dry	426	78.6000	1	06/07/06
Hexachlorocyclopentadiene		ND	ug/Kg dry	2140	244.0000	1	06/07/06
Hexachloroethane		ND	ug/Kg dry	426	48.2000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	J	299	ug/Kg dry	426	61.4000	1	06/07/06
Isophorone		ND	ug/Kg dry	426	35.8000	1	06/07/06
Naphthalene		ND	ug/Kg dry	426	42.8000	1	06/07/06
Nitrobenzene		ND	ug/Kg dry	426	55.2000	1	06/07/06
N-Nitrosodimethylamine		ND	ug/Kg dry	426	72.2000	1	06/07/06
N-Nitroso-Di-n-Propylamine		ND	ug/Kg dry	426	52.8000	1	06/07/06
N-nitrosodiphenylamine		ND	ug/Kg dry	426	45.6000	1	06/07/06
Pentachlorophenol		ND	ug/Kg dry	2140	438.0000	1	06/07/06
Phenanthrene		438	ug/Kg dry	426	58.6000	1	06/07/06
Phenol		ND	ug/Kg dry	426	43.6000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-15 TP-12/0-6"  
Date Sampled: 05/30/06 13:45  
Percent Solids: 80  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-15  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	729	ug/Kg dry	426	39.6000	1	06/07/06
Pyridine	ND	ug/Kg dry	2140	96.2000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	83 %		30-130
Surrogate: 2,4,6-Tribromophenol	84 %		30-130
Surrogate: 2-Chlorophenol-d4	76 %		30-130
Surrogate: 2-Fluorobiphenyl	92 %		30-130
Surrogate: 2-Fluorophenol	75 %		30-130
Surrogate: Nitrobenzene-d5	86 %		30-130
Surrogate: Phenol-d6	78 %		30-130
Surrogate: p-Terphenyl-d14	92 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.8	6010B	1	SVD	05/31/06	1.79	100
Arsenic	4.5	mg/kg dry	1.7	7060A	5	SVD	06/03/06	1.79	100
Beryllium	0.68	mg/kg dry	0.07	6010B	1	SVD	05/31/06	1.79	100
Cadmium	ND	mg/kg dry	0.68	6010B	1	SVD	05/31/06	1.79	100
Chromium	8.1	mg/kg dry	1.4	6010B	1	SVD	05/31/06	1.79	100
Copper	13.4	mg/kg dry	1.4	6010B	1	SVD	05/31/06	1.79	100
Lead	39.0	mg/kg dry	6.8	6010B	1	SVD	05/31/06	1.79	100
Mercury	0.137	mg/kg dry	0.037	7471A	1	EEM	06/01/06	0.65	40
Nickel	3.9	mg/kg dry	3.4	6010B	1	SVD	05/31/06	1.79	100
Selenium	ND	mg/kg dry	6.8	6010B	1	SVD	05/31/06	1.79	100
Silver	ND	mg/kg dry	0.68	6010B	1	SVD	05/31/06	1.79	100
Thallium	ND	mg/kg dry	1.7	7841	5	JP	06/01/06	1.79	100
Zinc	53.9	mg/kg dry	3.4	6010B	1	SVD	05/31/06	1.79	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 14.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	149	95.4000	1	06/01/06
1,1,1-Trichloroethane	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
1,1,2-Trichloroethane	ND	ug/Kg dry	74.5	62.6000	1	06/01/06
1,1-Dichloroethane	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
1,1-Dichloroethene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
1,1-Dichloropropene	ND	ug/Kg dry	74.5	26.8000	1	06/01/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
1,2,3-Trichloropropane	ND	ug/Kg dry	74.5	74.4000	1	06/01/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	372	298.0000	1	06/01/06
1,2-Dibromoethane	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
1,2-Dichlorobenzene	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
1,2-Dichloroethane	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
1,2-Dichloropropane	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
1,3-Dichlorobenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
1,3-Dichloropropane	ND	ug/Kg dry	74.5	26.8000	1	06/01/06
1,4-Dichlorobenzene	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
1,4-Dioxane - Screen	ND	ug/Kg dry	7450	7160.0000	1	06/01/06
1-Chlorohexane	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
2,2-Dichloropropane	ND	ug/Kg dry	149	68.6000	1	06/01/06
2-Butanone	ND	ug/Kg dry	1860	608.0000	1	06/01/06
2-Chlorotoluene	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
2-Hexanone	ND	ug/Kg dry	745	149.0000	1	06/01/06
4-Chlorotoluene	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
4-Isopropyltoluene	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	745	187.8000	1	06/01/06
Acetone	ND	ug/Kg dry	1860	1266.0000	1	06/01/06
Benzene	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
Bromobenzene	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
Bromochloromethane	ND	ug/Kg dry	74.5	44.6000	1	06/01/06
Bromodichloromethane	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
Bromoform	ND	ug/Kg dry	74.5	32.8000	1	06/01/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 14.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	149	29.8000	1	06/01/06
Carbon Disulfide	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
Carbon Tetrachloride	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
Chlorobenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Chloroethane	ND	ug/Kg dry	149	89.4000	1	06/01/06
Chloroform	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Chloromethane	ND	ug/Kg dry	149	44.6000	1	06/01/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
Dibromochloromethane	ND	ug/Kg dry	74.5	23.8000	1	06/01/06
Dibromomethane	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
Dichlorodifluoromethane	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Diethyl Ether	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
Di-isopropyl ether	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
Ethylbenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Hexachlorobutadiene	ND	ug/Kg dry	74.5	65.6000	1	06/01/06
Isopropylbenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Methylene Chloride	ND	ug/Kg dry	372	56.6000	1	06/01/06
Naphthalene	ND	ug/Kg dry	74.5	23.8000	1	06/01/06
n-Butylbenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
n-Propylbenzene	ND	ug/Kg dry	74.5	29.8000	1	06/01/06
sec-Butylbenzene	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
Styrene	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
tert-Butylbenzene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	74.5	41.8000	1	06/01/06
Tetrachloroethene	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
Tetrahydrofuran	ND	ug/Kg dry	372	298.0000	1	06/01/06
Toluene	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	74.5	47.6000	1	06/01/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	74.5	35.8000	1	06/01/06
Trichloroethene	ND	ug/Kg dry	74.5	32.8000	1	06/01/06
Trichlorofluoromethane	ND	ug/Kg dry	74.5	38.8000	1	06/01/06
Vinyl Acetate	ND	ug/Kg dry	372	56.6000	1	06/01/06
Vinyl Chloride	ND	ug/Kg dry	74.5	35.8000	1	06/01/06

# ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 14.4  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	74.5	26.8000	1	06/01/06
Xylene P,M	ND	ug/Kg dry	149	71.6000	1	06/01/06
Xylenes (Total)	ND	ug/Kg	224			06/01/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	97 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		70-130
Surrogate: Dibromofluoromethane	103 %		70-130
Surrogate: Toluene-d8	98 %		70-130

# ESS Laboratory

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Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	8.64	ug/Kg dry	6.10	1	06/04/06
4,4'-DDE	115	ug/Kg dry	61.0	10	06/05/06
4,4'-DDT	116	ug/Kg dry	61.0	10	06/05/06
Aldrin	ND	ug/Kg dry	6.10	1	06/04/06
alpha-BHC	ND	ug/Kg dry	6.10	1	06/04/06
alpha-Chlordane	ND	ug/Kg dry	6.10	1	06/04/06
beta-BHC	ND	ug/Kg dry	6.10	1	06/04/06
Chlordane (Total)	ND	ug/Kg dry	61.0	1	06/04/06
delta-BHC	ND	ug/Kg dry	6.10	1	06/04/06
Dieldrin	ND	ug/Kg dry	6.10	1	06/04/06
Endosulfan I	ND	ug/Kg dry	6.10	1	06/04/06
Endosulfan II	ND	ug/Kg dry	6.10	1	06/04/06
Endosulfan Sulfate	ND	ug/Kg dry	6.10	1	06/04/06
Endrin	ND	ug/Kg dry	6.10	1	06/04/06
Endrin Aldehyde	ND	ug/Kg dry	6.10	1	06/04/06
Endrin Ketone	ND	ug/Kg dry	6.10	1	06/04/06
gamma-BHC (Lindane)	ND	ug/Kg dry	6.10	1	06/04/06
gamma-Chlordane	ND	ug/Kg dry	6.10	1	06/04/06
Heptachlor	ND	ug/Kg dry	6.10	1	06/04/06
Heptachlor Epoxide	ND	ug/Kg dry	6.10	1	06/04/06
Hexachlorobenzene	ND	ug/Kg dry	6.10	1	06/04/06
Methoxychlor	ND	ug/Kg dry	6.10	1	06/04/06
Toxaphene	ND	ug/Kg dry	305	1	06/04/06

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
Surrogate: Decachlorobiphenyl	88 %		30-150
Surrogate: Decachlorobiphenyl [2C]	89 %		30-150
Surrogate: Tetrachloro-m-xylene	86 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	89 %		30-150

# ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
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Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	60.9	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	60.9	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	83 %		30-150
Surrogate: Decachlorobiphenyl [2C]	105 %		30-150
Surrogate: Tetrachloro-m-xylene	87 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	90 %		30-150



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 29.7  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	30.8	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	62 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 30.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	401	41.0000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	401	52.4000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	401	45.2000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	401	47.6000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	401	45.0000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	2010	55.4000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	401	74.6000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	401	41.8000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	401	47.0000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	401	33.6000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	2010	466.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	401	60.2000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	401	41.8000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	401	43.4000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	401	53.6000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	401	39.8000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	401	28.8000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	401	52.2000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	401	43.0000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	803	53.6000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	803	37.6000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	401	50.6000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	2010	49.2000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	401	61.4000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	401	54.2000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	803	274.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	401	46.0000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	401	53.4000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	2010	442.0000	1	06/07/06
Acenaphthene	ND	ug/Kg dry	401	59.0000	1	06/07/06
Acenaphthylene	ND	ug/Kg dry	401	38.8000	1	06/07/06
Acetophenone	ND	ug/Kg dry	803	516.0000	1	06/07/06
Aniline	ND	ug/Kg dry	2010	57.8000	1	06/07/06
Anthracene	ND	ug/Kg dry	401	45.4000	1	06/07/06
Azobenzene	ND	ug/Kg dry	401	84.0000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 30.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	J	94.7	ug/Kg dry	401	41.2000	1	06/07/06
Benzo(a)pyrene	J	114	ug/Kg dry	201	42.6000	1	06/07/06
Benzo(b)fluoranthene	J	254	ug/Kg dry	401	74.2000	1	06/07/06
Benzo(g,h,i)perylene	J	81.4	ug/Kg dry	401	47.0000	1	06/07/06
Benzo(k)fluoranthene	J	72.6	ug/Kg dry	401	70.0000	1	06/07/06
Benzoic Acid	ND		ug/Kg dry	2010	508.0000	1	06/07/06
Benzyl Alcohol	ND		ug/Kg dry	401	47.8000	1	06/07/06
bis(2-Chloroethoxy)methane	ND		ug/Kg dry	401	33.6000	1	06/07/06
bis(2-Chloroethyl)ether	ND		ug/Kg dry	401	63.4000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND		ug/Kg dry	401	45.2000	1	06/07/06
bis(2-Ethylhexyl)phthalate	J	112	ug/Kg dry	401	53.0000	1	06/07/06
Butylbenzylphthalate	ND		ug/Kg dry	401	41.8000	1	06/07/06
Carbazole	ND		ug/Kg dry	401	52.4000	1	06/07/06
Chrysene	J	120	ug/Kg dry	201	50.4000	1	06/07/06
Dibenzo(a,h)Anthracene	ND		ug/Kg dry	201	49.4000	1	06/07/06
Dibenzofuran	ND		ug/Kg dry	401	44.6000	1	06/07/06
Diethylphthalate	ND		ug/Kg dry	401	58.2000	1	06/07/06
Dimethylphthalate	ND		ug/Kg dry	401	55.4000	1	06/07/06
Di-n-butylphthalate	ND		ug/Kg dry	401	49.8000	1	06/07/06
Di-n-octylphthalate	ND		ug/Kg dry	401	54.6000	1	06/07/06
Fluoranthene	J	216	ug/Kg dry	401	48.2000	1	06/07/06
Fluorene	ND		ug/Kg dry	401	38.2000	1	06/07/06
Hexachlorobenzene	ND		ug/Kg dry	401	56.6000	1	06/07/06
Hexachlorobutadiene	ND		ug/Kg dry	401	73.8000	1	06/07/06
Hexachlorocyclopentadiene	ND		ug/Kg dry	2010	228.0000	1	06/07/06
Hexachloroethane	ND		ug/Kg dry	401	45.2000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	J	75.8	ug/Kg dry	401	57.8000	1	06/07/06
Isophorone	ND		ug/Kg dry	401	33.6000	1	06/07/06
Naphthalene	ND		ug/Kg dry	401	40.2000	1	06/07/06
Nitrobenzene	ND		ug/Kg dry	401	52.0000	1	06/07/06
N-Nitrosodimethylamine	ND		ug/Kg dry	401	67.8000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND		ug/Kg dry	401	49.6000	1	06/07/06
N-nitrosodiphenylamine	ND		ug/Kg dry	401	42.8000	1	06/07/06
Pentachlorophenol	ND		ug/Kg dry	2010	412.0000	1	06/07/06
Phenanthrene	J	85.0	ug/Kg dry	401	55.2000	1	06/07/06
Phenol	ND		ug/Kg dry	401	41.0000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-16 TP-13/0-6"  
Date Sampled: 05/30/06 14:00  
Percent Solids: 82  
Initial Volume: 30.4  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-16  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	J	158	ug/Kg dry	401	37.4000	1	06/07/06
Pyridine	ND		ug/Kg dry	2010	90.6000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	66 %		30-130
Surrogate: 2,4,6-Tribromophenol	68 %		30-130
Surrogate: 2-Chlorophenol-d4	59 %		30-130
Surrogate: 2-Fluorobiphenyl	76 %		30-130
Surrogate: 2-Fluorophenol	60 %		30-130
Surrogate: Nitrobenzene-d5	70 %		30-130
Surrogate: Phenol-d6	59 %		30-130
Surrogate: p-Terphenyl-d14	68 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil

### 3050B/6000/7000 Total Metals

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	1	SVD	05/31/06	1.93	100
Arsenic	1.4	mg/kg dry	1.4	7060A	5	SVD	06/03/06	1.93	100
Beryllium	0.24	mg/kg dry	0.06	6010B	1	SVD	05/31/06	1.93	100
Cadmium	ND	mg/kg dry	0.57	6010B	1	SVD	05/31/06	1.93	100
Chromium	4.0	mg/kg dry	1.1	6010B	1	SVD	05/31/06	1.93	100
Copper	6.7	mg/kg dry	1.1	6010B	1	SVD	05/31/06	1.93	100
Lead	56.1	mg/kg dry	5.7	6010B	1	SVD	05/31/06	1.93	100
Mercury	ND	mg/kg dry	0.036	7471A	1	EEM	06/01/06	0.61	40
Nickel	3.1	mg/kg dry	2.8	6010B	1	SVD	05/31/06	1.93	100
Selenium	ND	mg/kg dry	5.7	6010B	1	SVD	05/31/06	1.93	100
Silver	ND	mg/kg dry	0.57	6010B	1	SVD	05/31/06	1.93	100
Thallium	ND	mg/kg dry	1.4	7841	5	JP	06/01/06	1.93	100
Zinc	30.6	mg/kg dry	2.8	6010B	1	SVD	05/31/06	1.93	100

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 17.3  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg dry	105	67.4000	1	06/01/06
1,1,1-Trichloroethane	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
1,1,2-Trichloroethane	ND	ug/Kg dry	52.6	44.2000	1	06/01/06
1,1-Dichloroethane	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
1,1-Dichloroethene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
1,1-Dichloropropene	ND	ug/Kg dry	52.6	19.0000	1	06/01/06
1,2,3-Trichlorobenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
1,2,3-Trichloropropane	ND	ug/Kg dry	52.6	52.6000	1	06/01/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
1,2,4-Trimethylbenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg dry	263	210.0000	1	06/01/06
1,2-Dibromoethane	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
1,2-Dichlorobenzene	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
1,2-Dichloroethane	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
1,2-Dichloropropane	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
1,3,5-Trimethylbenzene	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
1,3-Dichlorobenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
1,3-Dichloropropane	ND	ug/Kg dry	52.6	19.0000	1	06/01/06
1,4-Dichlorobenzene	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
1,4-Dioxane - Screen	ND	ug/Kg dry	5260	5040.0000	1	06/01/06
1-Chlorohexane	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
2,2-Dichloropropane	ND	ug/Kg dry	105	48.4000	1	06/01/06
2-Butanone	ND	ug/Kg dry	1310	430.0000	1	06/01/06
2-Chlorotoluene	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
2-Hexanone	ND	ug/Kg dry	526	105.2000	1	06/01/06
4-Chlorotoluene	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
4-Isopropyltoluene	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
4-Methyl-2-Pentanone	ND	ug/Kg dry	526	132.6000	1	06/01/06
Acetone	ND	ug/Kg dry	1310	894.0000	1	06/01/06
Benzene	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
Bromobenzene	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
Bromochloromethane	ND	ug/Kg dry	52.6	31.6000	1	06/01/06
Bromodichloromethane	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
Bromoform	ND	ug/Kg dry	52.6	23.2000	1	06/01/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 17.3  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg dry	105	21.0000	1	06/01/06
Carbon Disulfide	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
Carbon Tetrachloride	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
Chlorobenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Chloroethane	ND	ug/Kg dry	105	63.2000	1	06/01/06
Chloroform	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Chloromethane	ND	ug/Kg dry	105	31.6000	1	06/01/06
cis-1,2-Dichloroethene	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
cis-1,3-Dichloropropene	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
Dibromochloromethane	ND	ug/Kg dry	52.6	16.8000	1	06/01/06
Dibromomethane	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
Dichlorodifluoromethane	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Diethyl Ether	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
Di-isopropyl ether	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Ethyl tertiary-butyl ether	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
Ethylbenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Hexachlorobutadiene	ND	ug/Kg dry	52.6	46.2000	1	06/01/06
Isopropylbenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Methyl tert-Butyl Ether	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Methylene Chloride	ND	ug/Kg dry	263	40.0000	1	06/01/06
Naphthalene	ND	ug/Kg dry	52.6	16.8000	1	06/01/06
n-Butylbenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
n-Propylbenzene	ND	ug/Kg dry	52.6	21.0000	1	06/01/06
sec-Butylbenzene	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
Styrene	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
tert-Butylbenzene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Tertiary-amyl methyl ether	ND	ug/Kg dry	52.6	29.4000	1	06/01/06
Tetrachloroethene	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
Tetrahydrofuran	ND	ug/Kg dry	263	210.0000	1	06/01/06
Toluene	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
trans-1,2-Dichloroethene	ND	ug/Kg dry	52.6	33.6000	1	06/01/06
trans-1,3-Dichloropropene	ND	ug/Kg dry	52.6	25.2000	1	06/01/06
Trichloroethene	ND	ug/Kg dry	52.6	23.2000	1	06/01/06
Trichlorofluoromethane	ND	ug/Kg dry	52.6	27.4000	1	06/01/06
Vinyl Acetate	ND	ug/Kg dry	263	40.0000	1	06/01/06
Vinyl Chloride	ND	ug/Kg dry	52.6	25.2000	1	06/01/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 17.3  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg dry	52.6	19.0000	1	06/01/06
Xylene P,M	ND	ug/Kg dry	105	50.4000	1	06/01/06
Xylenes (Total)	ND	ug/Kg	158			06/01/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	92 %		70-130
Surrogate: 4-Bromofluorobenzene	91 %		70-130
Surrogate: Dibromofluoromethane	99 %		70-130
Surrogate: Toluene-d8	93 %		70-130



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: SEP  
Prepared: 06/03/06

### 8081A Organochlorine Pesticides

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
4,4'-DDD	ND	ug/Kg dry	5.49	1	06/05/06
4,4'-DDE	36.5	ug/Kg dry	5.49	1	06/05/06
4,4'-DDT	51.9	ug/Kg dry	27.5	5	06/05/06
Aldrin	ND	ug/Kg dry	5.49	1	06/05/06
alpha-BHC	ND	ug/Kg dry	5.49	1	06/05/06
alpha-Chlordane	51.2	ug/Kg dry	5.49	1	06/05/06
beta-BHC	ND	ug/Kg dry	5.49	1	06/05/06
Chlordane (Total)	154	ug/Kg dry	54.9	1	06/05/06
delta-BHC	ND	ug/Kg dry	5.49	1	06/05/06
Dieldrin	ND	ug/Kg dry	5.49	1	06/05/06
Endosulfan I	ND	ug/Kg dry	5.49	1	06/05/06
Endosulfan II	ND	ug/Kg dry	5.49	1	06/05/06
Endosulfan Sulfate	ND	ug/Kg dry	5.49	1	06/05/06
Endrin	ND	ug/Kg dry	5.49	1	06/05/06
Endrin Aldehyde	ND	ug/Kg dry	5.49	1	06/05/06
Endrin Ketone	ND	ug/Kg dry	5.49	1	06/05/06
gamma-BHC (Lindane)	ND	ug/Kg dry	5.49	1	06/05/06
gamma-Chlordane	36.1	ug/Kg dry	5.49	1	06/05/06
Heptachlor	ND	ug/Kg dry	5.49	1	06/05/06
Heptachlor Epoxide	ND	ug/Kg dry	5.49	1	06/05/06
Hexachlorobenzene	ND	ug/Kg dry	5.49	1	06/05/06
Methoxychlor	ND	ug/Kg dry	5.49	1	06/05/06
Toxaphene	ND	ug/Kg dry	275	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	81 %		30-150
Surrogate: Decachlorobiphenyl [2C]	74 %		30-150
Surrogate: Tetrachloro-m-xylene	80 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	80 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 20  
Final Volume: 10  
Extraction Method: 3541

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: ML  
Prepared: 06/03/06

### 8082 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1221	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1232	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1242	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1248	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1254	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1260	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1262	ND	ug/Kg dry	54.9	1	06/05/06
Aroclor 1268	ND	ug/Kg dry	54.9	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	72 %		30-150
Surrogate: Decachlorobiphenyl [2C]	84 %		30-150
Surrogate: Tetrachloro-m-xylene	80 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	83 %		30-150

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 29.3  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: JLS  
Prepared: 06/02/06

### 8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	30.1	mg/kg dry	28.1	1	06/05/06

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	89 %		40-140

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 30.2  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	ug/Kg dry	364	37.2000	1	06/07/06
1,2,4-Trichlorobenzene	ND	ug/Kg dry	364	47.6000	1	06/07/06
1,2-Dichlorobenzene	ND	ug/Kg dry	364	41.0000	1	06/07/06
1,3-Dichlorobenzene	ND	ug/Kg dry	364	43.2000	1	06/07/06
1,4-Dichlorobenzene	ND	ug/Kg dry	364	40.8000	1	06/07/06
2,3,4,6-Tetrachlorophenol	ND	ug/Kg dry	1820	50.2000	1	06/07/06
2,4,5-Trichlorophenol	ND	ug/Kg dry	364	67.6000	1	06/07/06
2,4,6-Trichlorophenol	ND	ug/Kg dry	364	38.0000	1	06/07/06
2,4-Dichlorophenol	ND	ug/Kg dry	364	42.6000	1	06/07/06
2,4-Dimethylphenol	ND	ug/Kg dry	364	30.6000	1	06/07/06
2,4-Dinitrophenol	ND	ug/Kg dry	1820	424.0000	1	06/07/06
2,4-Dinitrotoluene	ND	ug/Kg dry	364	54.6000	1	06/07/06
2,6-Dinitrotoluene	ND	ug/Kg dry	364	38.0000	1	06/07/06
2-Chloronaphthalene	ND	ug/Kg dry	364	39.2000	1	06/07/06
2-Chlorophenol	ND	ug/Kg dry	364	48.6000	1	06/07/06
2-Methylnaphthalene	ND	ug/Kg dry	364	36.0000	1	06/07/06
2-Methylphenol	ND	ug/Kg dry	364	26.2000	1	06/07/06
2-Nitroaniline	ND	ug/Kg dry	364	47.4000	1	06/07/06
2-Nitrophenol	ND	ug/Kg dry	364	39.0000	1	06/07/06
3,3'-Dichlorobenzidine	ND	ug/Kg dry	728	48.6000	1	06/07/06
3+4-Methylphenol	ND	ug/Kg dry	728	34.0000	1	06/07/06
3-Nitroaniline	ND	ug/Kg dry	364	45.8000	1	06/07/06
4,6-Dinitro-2-Methylphenol	ND	ug/Kg dry	1820	44.6000	1	06/07/06
4-Bromophenyl-phenylether	ND	ug/Kg dry	364	55.6000	1	06/07/06
4-Chloro-3-Methylphenol	ND	ug/Kg dry	364	49.2000	1	06/07/06
4-Chloroaniline	ND	ug/Kg dry	728	250.0000	1	06/07/06
4-Chloro-phenyl-phenyl ether	ND	ug/Kg dry	364	41.6000	1	06/07/06
4-Nitroaniline	ND	ug/Kg dry	364	48.4000	1	06/07/06
4-Nitrophenol	ND	ug/Kg dry	1820	400.0000	1	06/07/06
Acenaphthene	J 124	ug/Kg dry	364	53.4000	1	06/07/06
Acenaphthylene	J 165	ug/Kg dry	364	35.2000	1	06/07/06
Acetophenone	ND	ug/Kg dry	728	468.0000	1	06/07/06
Aniline	ND	ug/Kg dry	1820	52.4000	1	06/07/06
Anthracene	855	ug/Kg dry	364	41.2000	1	06/07/06
Azobenzene	ND	ug/Kg dry	364	76.2000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 30.2  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	2200	ug/Kg dry	364	37.4000	1	06/07/06
Benzo(a)pyrene	2110	ug/Kg dry	182	38.6000	1	06/07/06
Benzo(b)fluoranthene	2230	ug/Kg dry	364	67.2000	1	06/07/06
Benzo(g,h,i)perylene	1100	ug/Kg dry	364	42.6000	1	06/07/06
Benzo(k)fluoranthene	1150	ug/Kg dry	364	63.6000	1	06/07/06
Benzoic Acid	ND	ug/Kg dry	1820	460.0000	1	06/07/06
Benzyl Alcohol	ND	ug/Kg dry	364	43.4000	1	06/07/06
bis(2-Chloroethoxy)methane	ND	ug/Kg dry	364	30.6000	1	06/07/06
bis(2-Chloroethyl)ether	ND	ug/Kg dry	364	57.4000	1	06/07/06
bis(2-chloroisopropyl)Ether	ND	ug/Kg dry	364	41.0000	1	06/07/06
bis(2-Ethylhexyl)phthalate	412	ug/Kg dry	364	48.0000	1	06/07/06
Butylbenzylphthalate	J 46.9	ug/Kg dry	364	38.0000	1	06/07/06
Carbazole	J 99.7	ug/Kg dry	364	47.6000	1	06/07/06
Chrysene	2100	ug/Kg dry	182	45.6000	1	06/07/06
Dibenzo(a,h)Anthracene	J 107	ug/Kg dry	182	44.8000	1	06/07/06
Dibenzofuran	J 92.1	ug/Kg dry	364	40.4000	1	06/07/06
Diethylphthalate	ND	ug/Kg dry	364	52.8000	1	06/07/06
Dimethylphthalate	ND	ug/Kg dry	364	50.2000	1	06/07/06
Di-n-butylphthalate	ND	ug/Kg dry	364	45.2000	1	06/07/06
Di-n-octylphthalate	ND	ug/Kg dry	364	49.6000	1	06/07/06
Fluoranthene	5890	ug/Kg dry	364	43.6000	1	06/07/06
Fluorene	J 315	ug/Kg dry	364	34.8000	1	06/07/06
Hexachlorobenzene	ND	ug/Kg dry	364	51.4000	1	06/07/06
Hexachlorobutadiene	ND	ug/Kg dry	364	67.0000	1	06/07/06
Hexachlorocyclopentadiene	ND	ug/Kg dry	1820	208.0000	1	06/07/06
Hexachloroethane	ND	ug/Kg dry	364	41.0000	1	06/07/06
Indeno(1,2,3-cd)Pyrene	1080	ug/Kg dry	364	52.4000	1	06/07/06
Isophorone	ND	ug/Kg dry	364	30.6000	1	06/07/06
Naphthalene	ND	ug/Kg dry	364	36.4000	1	06/07/06
Nitrobenzene	ND	ug/Kg dry	364	47.2000	1	06/07/06
N-Nitrosodimethylamine	ND	ug/Kg dry	364	61.6000	1	06/07/06
N-Nitroso-Di-n-Propylamine	ND	ug/Kg dry	364	45.0000	1	06/07/06
N-nitrosodiphenylamine	ND	ug/Kg dry	364	38.8000	1	06/07/06
Pentachlorophenol	ND	ug/Kg dry	1820	374.0000	1	06/07/06
Phenanthrene	3670	ug/Kg dry	364	50.0000	1	06/07/06
Phenol	ND	ug/Kg dry	364	37.2000	1	06/07/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: 3027060530-17 TP-13/0.5-1'  
Date Sampled: 05/30/06 14:05  
Percent Solids: 91  
Initial Volume: 30.2  
Final Volume: 1  
Extraction Method: 3550B

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-17  
Sample Matrix: Soil  
Analyst: VSC  
Prepared: 06/02/06

### 8270C Semi-Volatile Organic Compounds

Pyrene	4270	ug/Kg dry	364	33.8000	1	06/07/06
Pyridine	ND	ug/Kg dry	1820	82.0000	1	06/07/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	77 %		30-130
Surrogate: 2,4,6-Tribromophenol	76 %		30-130
Surrogate: 2-Chlorophenol-d4	69 %		30-130
Surrogate: 2-Fluorobiphenyl	88 %		30-130
Surrogate: 2-Fluorophenol	70 %		30-130
Surrogate: Nitrobenzene-d5	82 %		30-130
Surrogate: Phenol-d6	69 %		30-130
Surrogate: p-Terphenyl-d14	78 %		30-130

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Mickey Stevens

Client Sample ID: Trip Blank

Date Sampled: 05/30/06 00:00

Percent Solids: N/A

Initial Volume: 15

Final Volume: 15

Extraction Method: 5035

ESS Laboratory Work Order: 0605478

ESS Laboratory Sample ID: 0605478-18

Sample Matrix: Solid

Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>2xMDL</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	ug/Kg	100	64.0000	1	05/31/06
1,1,1-Trichloroethane	ND	ug/Kg	50.0	24.0000	1	05/31/06
1,1,2,2-Tetrachloroethane	ND	ug/Kg	50.0	28.0000	1	05/31/06
1,1,2-Trichloroethane	ND	ug/Kg	50.0	42.0000	1	05/31/06
1,1-Dichloroethane	ND	ug/Kg	50.0	28.0000	1	05/31/06
1,1-Dichloroethene	ND	ug/Kg	50.0	22.0000	1	05/31/06
1,1-Dichloropropene	ND	ug/Kg	50.0	18.0000	1	05/31/06
1,2,3-Trichlorobenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
1,2,3-Trichloropropane	ND	ug/Kg	50.0	50.0000	1	05/31/06
1,2,4-Trichlorobenzene	ND	ug/Kg	50.0	20.0000	1	05/31/06
1,2,4-Trimethylbenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
1,2-Dibromo-3-Chloropropane	ND	ug/Kg	250	200.0000	1	05/31/06
1,2-Dibromoethane	ND	ug/Kg	50.0	20.0000	1	05/31/06
1,2-Dichlorobenzene	ND	ug/Kg	50.0	20.0000	1	05/31/06
1,2-Dichloroethane	ND	ug/Kg	50.0	24.0000	1	05/31/06
1,2-Dichloropropane	ND	ug/Kg	50.0	28.0000	1	05/31/06
1,3,5-Trimethylbenzene	ND	ug/Kg	50.0	26.0000	1	05/31/06
1,3-Dichlorobenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
1,3-Dichloropropane	ND	ug/Kg	50.0	18.0000	1	05/31/06
1,4-Dichlorobenzene	ND	ug/Kg	50.0	26.0000	1	05/31/06
1,4-Dioxane - Screen	ND	ug/Kg	5000	5000.0000	1	05/31/06
1-Chlorohexane	ND	ug/Kg	50.0	24.0000	1	05/31/06
2,2-Dichloropropane	ND	ug/Kg	100	46.0000	1	05/31/06
2-Butanone	ND	ug/Kg	1250	408.0000	1	05/31/06
2-Chlorotoluene	ND	ug/Kg	50.0	28.0000	1	05/31/06
2-Hexanone	ND	ug/Kg	500	100.0000	1	05/31/06
4-Chlorotoluene	ND	ug/Kg	50.0	24.0000	1	05/31/06
4-Isopropyltoluene	ND	ug/Kg	50.0	24.0000	1	05/31/06
4-Methyl-2-Pentanone	ND	ug/Kg	500	126.0000	1	05/31/06
Acetone	ND	ug/Kg	1250	850.0000	1	05/31/06
Benzene	ND	ug/Kg	50.0	28.0000	1	05/31/06
Bromobenzene	ND	ug/Kg	50.0	20.0000	1	05/31/06
Bromochloromethane	ND	ug/Kg	50.0	30.0000	1	05/31/06
Bromodichloromethane	ND	ug/Kg	50.0	26.0000	1	05/31/06
Bromoform	ND	ug/Kg	50.0	22.0000	1	05/31/06

# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: Trip Blank  
Date Sampled: 05/30/06 00:00  
Percent Solids: N/A  
Initial Volume: 15  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-18  
Sample Matrix: Solid  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Bromomethane	ND	ug/Kg	100	20.0000	1	05/31/06
Carbon Disulfide	ND	ug/Kg	50.0	24.0000	1	05/31/06
Carbon Tetrachloride	ND	ug/Kg	50.0	26.0000	1	05/31/06
Chlorobenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
Chloroethane	ND	ug/Kg	100	60.0000	1	05/31/06
Chloroform	ND	ug/Kg	50.0	22.0000	1	05/31/06
Chloromethane	ND	ug/Kg	100	30.0000	1	05/31/06
cis-1,2-Dichloroethene	ND	ug/Kg	50.0	28.0000	1	05/31/06
cis-1,3-Dichloropropene	ND	ug/Kg	50.0	20.0000	1	05/31/06
Dibromochloromethane	ND	ug/Kg	50.0	16.0000	1	05/31/06
Dibromomethane	ND	ug/Kg	50.0	26.0000	1	05/31/06
Dichlorodifluoromethane	ND	ug/Kg	50.0	22.0000	1	05/31/06
Diethyl Ether	ND	ug/Kg	50.0	28.0000	1	05/31/06
Di-isopropyl ether	ND	ug/Kg	50.0	22.0000	1	05/31/06
Ethyl tertiary-butyl ether	ND	ug/Kg	50.0	20.0000	1	05/31/06
Ethylbenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
Hexachlorobutadiene	ND	ug/Kg	50.0	44.0000	1	05/31/06
Isopropylbenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
Methyl tert-Butyl Ether	ND	ug/Kg	50.0	22.0000	1	05/31/06
Methylene Chloride	ND	ug/Kg	250	38.0000	1	05/31/06
Naphthalene	ND	ug/Kg	50.0	16.0000	1	05/31/06
n-Butylbenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
n-Propylbenzene	ND	ug/Kg	50.0	20.0000	1	05/31/06
sec-Butylbenzene	ND	ug/Kg	50.0	24.0000	1	05/31/06
Styrene	ND	ug/Kg	50.0	24.0000	1	05/31/06
tert-Butylbenzene	ND	ug/Kg	50.0	22.0000	1	05/31/06
Tertiary-amyl methyl ether	ND	ug/Kg	50.0	28.0000	1	05/31/06
Tetrachloroethene	ND	ug/Kg	50.0	24.0000	1	05/31/06
Tetrahydrofuran	ND	ug/Kg	250	200.0000	1	05/31/06
Toluene	ND	ug/Kg	50.0	26.0000	1	05/31/06
trans-1,2-Dichloroethene	ND	ug/Kg	50.0	32.0000	1	05/31/06
trans-1,3-Dichloropropene	ND	ug/Kg	50.0	24.0000	1	05/31/06
Trichloroethene	ND	ug/Kg	50.0	22.0000	1	05/31/06
Trichlorofluoromethane	ND	ug/Kg	50.0	26.0000	1	05/31/06
Vinyl Acetate	ND	ug/Kg	250	38.0000	1	05/31/06
Vinyl Chloride	ND	ug/Kg	50.0	24.0000	1	05/31/06



# ESS Laboratory

Division of Thielsch Engineering, Inc.

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Mickey Stevens  
Client Sample ID: Trip Blank  
Date Sampled: 05/30/06 00:00  
Percent Solids: N/A  
Initial Volume: 15  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 0605478  
ESS Laboratory Sample ID: 0605478-18  
Sample Matrix: Solid  
Analyst: RES

### 5035/8260B Volatile Organic Compounds / Methanol

Xylene O	ND	ug/Kg	50.0	18.0000	1	05/31/06
Xylene P,M	ND	ug/Kg	100	48.0000	1	05/31/06
Xylenes (Total)	ND	ug/Kg	300	62.0000		05/31/06

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	91 %		70-130
Surrogate: 4-Bromofluorobenzene	92 %		70-130
Surrogate: Dibromofluoromethane	96 %		70-130
Surrogate: Toluene-d8	93 %		70-130

# ESS Laboratory

*Division of Thielsch Engineering, Inc.*

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Mickey Stevens

ESS Laboratory Work Order: 0605478

### Notes and Definitions

P	Percent difference between primary and confirmation results exceeds 40%.
J	Reported between 2xMDL and MRL; Estimated value.
+	Outside QC Limits.
ND	Analyte NOT DETECTED above the detection limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
mg/kg	Results reported as wet weight
TCLP	Toxicity Characteristic Leachate Procedure
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
TIC	A forward library search of the NBS Mass Spectral Library was performed on this sample using the McLafferty Probability Base Matching (PBM) Algorithm. An estimated concentration of non-TCL compounds tentatively identified is quantified by the internal standard method. The nearest internal standard free of interferences was used to quantify. A response factor of one was assumed. This search was inclusive of the ten largest peaks greater than ten percent of the nearest internal standard.
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
¶	The state of RI does not grant certification for this method for non-potables.



Turn Time  Standard  Other  
 If faster than 5 days, prior approval by laboratory is required #  
 State where samples were collected from:  
 MA (RI) CT NH NJ NY ME Other  
 Is this project for any of the following:  
 MA-MCP Navy USACE Other

Reporting Limits 125 Raw  
 Electronic Deliverable Yes      No       
 Format: Excel      Access      PDF      Other       
 ESS LAB PROJECT ID 0605478

Co. Name	Project #	Project Name (20 Char. or less)	Type of Containers	Number of Containers	Type of Containers	Circle and/or Write Required Analysis	
Ken McDermott - VHB	7195.00	Mickey Stevens					
Contact Person	Address	Email Address					
City	Zip	PO#					
Telephone #							
ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code
1	5/30/06	0830		✓	✓	3027060530-01 TP-01/06	1/08/16N
2		0850				-02 TP-01/06	
3		0930				-03 TP-02/06	
4		1000				-04 TP-03/06	
5		1020				-05 TP-04/06	
6		1045				-06 TP-05/06	
7		1100				-07 TP-05/06	
8		1115				-08 TP-06/06	
9		1145				-09 TP-07/06	
10		1150				-10 TP-08/06	

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present Yes  No  Internal Use Only

Seals Intact Yes  No  NA  Pickup

Cooler Temp: 55.20C | Technicians     

Sampled by: Emily Swasso  
 Comments:     

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<u>Ken McDermott</u>	5/30/06 15:15	VHB Friose	5/30/06 15:16	VHB Friose	5/30/06 16:00	Ken McDermott	5/30/06 16:00
<u>Ken McDermott</u>	5/30/06 16:30	J. Swasso	5/30/06 16:30	J. Swasso	5/30/06 16:30	J. Swasso	5/30/06 16:30

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Turn Time  Standard  Other  
 If faster than 5 days, prior approval by laboratory is required #       
 State where samples were collected from:  
 MA (R) CT NH NJ NY ME Other  
 Is this project for any of the following:  
 MA-MCP Navy USACE Other

Reporting Limits RI RW ESS LAB PROJECT ID 0605478  
 Electronic Deliverable Yes      No       
 Format: Excel      Access      PDF      Other     

Co. Name VHB Project # 7191500 Project Name (20 Char. or less) Mickey Stevens  
 Contact Person Ken McDermott Address      Zip 02909 PO# 7191500  
 City Providence State RI Email Address kmcdermott@vhb.com  
 Telephone # 401-272-8100 Fax #     

ESS LAB Sample#	Date	Collection Time	CONF	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Type of Containers	Number of Containers	Type of Containers
11	5/30/06	1205	✓	✓	✓	S 3027060530-11 TP-09/0-6"	8260 (VOA)	✓	✓	8260 (VOA) 624 5242
12		1305				-12 TP-10/0-6"	8015 VPH	✓	✓	8015 VPH 8015 GRO
13		1310				-13 TP-10/0-6"	8015 GRO	✓	✓	8015 GRO
14		1320				-14 TP-11/0-6"	8015 GRO	✓	✓	8015 GRO
15		1345				-15 TP-12/0-6"	8015 GRO	✓	✓	8015 GRO
16		1400				-16 TP-13/0-6"	8015 GRO	✓	✓	8015 GRO
17		1405				-17 TP-13/0-5-1"	8015 GRO	✓	✓	8015 GRO
18		1500			TB	-18 Trip Blank	8015 GRO	✓	✓	8015 GRO

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present  Yes  No Internal Use Only  Yes  No

Seals Intact  Yes  No NA:  IM Pickup

Cooler Temp: 5.206 Comments: Emily Scussio

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<u>Ken McDermott</u>	5/30/06 1515	<u>VHB Friske</u>	5/30/06 1516	<u>VHB Friske</u>	5/30/06 16:00	<u>Ken McDermott</u>	5/30/06 16:00
<u>Ken McDermott</u>	5/30/06 16:30	<u>Paula</u>	5/30/06 16:30	<u>Paula</u>	5/30/06 16:30	<u>Paula</u>	5/30/06 16:30

\*By circling MA-MCP client acknowledges samples were collected in accordance with MADEP CAM VIIA  
 Please fax all changes to Chain of Custody in writing.  
 1 (White) Lab Copy 2 (Yellow) Client Receipt  
 10/26/04 B



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# Appendix J: *Warwick Beacon Article*