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July 21, 2006 VIA FEDEX



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Kelly A. Lewandowski, P.E. Chief, Site Control Section

New York State Department of Environmental Conservation TECHNICAL SUPPORT

625 Broadway, 11th Floor

Albany, New York 12233-7020

Re: Supplement to Petition Pursuant to 6 NYCRR Part 375 for

Modification of Registry Information for IBM-Kingston Site

Site Code 356002

Dear Ms. Lewandowski:

This firm represents AG Properties of Kingston, LLC and Ulster Business Complex, LLC which are the current owners of the former IBM-Kingston Site, Site Code 356002, located in the Town of Ulster, Ulster County (the "Site" or the "Facility"). On June 19, 2006 we submitted for the Commissioner's consideration a Petition and supporting documents pursuant to 6 NYCRR-375-1.9 (the "Petition") to modify the boundary of the Site on the New York Registry of Inactive Hazardous Waste Disposal Sites.

Enclosed herewith in furtherance of the Petition is a supplement to our clients' Part 373 Permit Modification application.

We appreciate the Department's consideration of these documents and look forward to a favorable determination in the near future.

Thank you for your courtesy and consideration.

Very truly yours,

GREEN & SEIFTER, ATTORNEYS, PLLC

Douglas H. Zamelis

Email: dzamelis@GSLaw.com Direct Fax: (315) 423-2822

DHZ/erb Enclosures

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Kelly A. Lewandowski, P.E. July 21, 2006 Page 2

cc: AG Properties of Kingston, LLC

Attn: Alan Ginsberg (w/o enclosures)

Ulster Business Complex, LLC

Attn: Alan Ginsberg (w/o enclosures)

IBM Corporation

Attn: Mitchell Meyers (w/o enclosures)

Divney Tung & Schwalbe

Attn: Michael S. Ahern, P.E. (w/o enclosures)

New York State Department of Environmental Conservation

Attn: James H. Ferreira, Esq. (w/o enclosures) Attn: Dale A. Desnoyers, Esq. (w/o enclosures)

Attn: Michael D. Merriman (w/o enclosures)

Attn: Gary D. Casper (w/o enclosures)

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EPA ID Number NYD001359694

Prepared For:

AG Properties of Kingston, LLC Kingston, NY

Ulster Business Complex, LLC Kingston, NY

July 20, 2006

Prepared By:

Divney Tung Schwalbe, LLP White Plains, NY

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Divney Tung Schwalbe, LLP One North Broadway White Plains, NY 10601

914 428 0010 914 428 0017 Fax J. Michael Divney, P.E., AICP Andrew V. Tung, ASLA, Esq. Gerhard M. Schwalbe, P.E.

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Michael S. Ahern, P.E. Lisa L. Baker, ASLA Maria A. Coplit, P.E. Donna M. Maiello, ASLA

July 20, 2006

Mr. Michael D. Merriman
Deputy Regional Permit Administrator
Division of Environmental Permits - Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1696

Re: Part 373 Permit Boundary Modification Application for DEC Permit No. 7-5154-00067/00090

EPA Identification No. NYD001359694

RECEIVED

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BUREAU OF TECHNICAL SUPPORT

Dear Mr. Merriman:

On behalf of AG Properties of Kingston, LLC and Ulster Business Complex, LLC, we have enclosed three (3) copies of a supplement per recent informal comments from Gary Casper and your office regarding the proposed permit modification for IBM's former Kingston facility now known as TechCity. The supplement contains the following documents:

- Tab 1 Short Environmental Assessment Form
- Tab 2 Volatile Organic Compounds in Indoor Air (NYSDOH)
- Tab 3 Indoor Air Quality Investigation (ERM)
- Tab 4 Limited Phase II Environmental Site Assessment (ERM)
- Tab 5 Preliminary Summary of the TechCity Site for Environmental Considerations (ENSR)
- Tab 6 Focused Phase II Investigation (ENSR)

Please call me at (914) 428-0010 if you have any questions or require additional information.

Very truly yours,

Michael S. Ahern, P.E.

Associate

MSA:cek Enclosures

CC: Gary Casper, NYSDEC Albany (w/1 enclosure)

James Reidy, EPA Region 2 (w/o enclosure)

Douglas Zamelis, Green & Seifter (w/6 enclosures)

Dean Chartrand, IBM (w/1 enclosure)

A. Ginsberg (w/1 enclosure)

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Prepared For:

AG Properties of Kingston, LLC Kingston, NY

Ulster Business Complex, LLC Kingston, NY

July 20, 2006

Prepared By:

Divney Tung Schwalbe, LLP White Plains, NY

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- 3 INDOOR AIR QUALITY INVESTIGATION dated October 1996 and prepared by ERM-Northeast, Inc.
- 4 LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT dated November 1997 and prepared by ERM-Northeast, Inc.
- 5 EMPIRE STATE NEWSPRINT PROJECT, PRELIMINARY SUMMARY OF THE TECHCITY SITE FOR ENVIRONMENTAL CONSIDERATIONS dated October 1999 and prepared by ENSR Consulting
- 6 EMPIRE STATE NEWSPRINT PROJECT, FOCUSED PHASE II INVESTIGATION dated Draft February 2, 2000 and prepared by ENSR Consulting

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Appendix C

State Environmental Quality Review

SHORT ENVIRONMENTAL ASSESSMENT FORM

For UNLISTED ACTIONS Only

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	NT/SPONSOR			2. PROJECT		
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TechCity (Formerly IBM-Kingston) Kingston, New York

ATTACHMENT FOR SHORT EAF, PART II, SECTION C:

The proposed action is to modify the referenced permit on a developed industrial site that is undergoing environmental remediation by IBM. Detailed plans and supporting documents were submitted to NYSDEC on June 6, 2006 and provide the basis for this request. The original NYSDEC permit, issued in 1988, referred to the entire IBM facility; this facility included undeveloped land and areas not used in the manufacturing and testing that occurred during IBM's operations. The cleanup and monitoring activities conducted by IBM since 1988 have resulted in a much smaller delineation of the site that is still affected by environmental issues; these areas are largely due to the presence of impacted groundwater beneath and adjacent to the former manufacturing areas. IBM's ongoing cleanup program should further reduce the extent of impacted groundwater in the future. As the proposed permit modification is the movement of a boundary line, adverse impacts are not anticipated as this is a developed site on which environmental cleanup will continue under NYSDEC oversight.

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NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Toxic Substance Assessment 2 University Place - Room 240 Albany, New York 12203 Telephone # - 518-458-6376

	FROM: CHAPLES Hudson GIFFEN GIFFEN Pax # - 518-458-6372 Date: 1/30/96	<u>/</u>
Subject/C	omments:	
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November 8, 1995

IBM KINGSTON Volatile Organic Compounds in Indoor Air

Background

The State of New York is considering purchasing Buildings B005N, B025, B201, B202, and B203 on the IBM Kingston facility. Past environmental investigations have identified subsurface volatile organic chemical (VOC) contamination in groundwater on the facility from leaking underground storage tanks. Cleanup pursuant to the Resource Conservation and Recovery Act (RCRA) began in 1985 and continues. Contaminated groundwater is being collected on the site using interceptor trenches and a recovery well. The collected water is treated in shallow tray aeration systems at two treatment facilities: one located about 750 feet northeast of Building B202 and one located at the southeast comer of Building B005. The VOCs are separated from the water and discharged into the atmosphere; clean water is discharged to the public sanitary sewer. Approximately 30 gallons per minute of water containing approximately one milligram per liter of total VOCs (primarily trichloroethene and 1,1,1-trichloroethane) are treated at the facility located northeast of Building B202. Approximately 5 gallons per minute of water containing approximately 0.5 milligrams per liter of total VOCs (primarily tetrachloroethene) are treated at Building B005. (Bramon, 1995) Air dispersion modelling of these small sources suggests that air levels at Buildings B005N and B202 would be extremely low and below detection limits of laboratory tests. (Chinery, 1995) Additional groundwater which infiltrates the storm sewer is discharged to the Esopus Creek without treatment under a SPDES permit. (Casper, 1995)

VOCs identified in the groundwater on the facility consist primarily of 1,1.1-trichloroethane and trichloroethene; concentrations up to 19.4 and 3.7 milligrams per liter respectively were detected in 1995. Tetrachloroethene, methylene chloride,

November 8, 1995

carbon tetrachloride, chloroform, 1,1-dichloroethene, and 1,1-dichloroethane have also been detected in the groundwater. Review of existing groundwater data reports and site status reports indicate that Buildings B201, B202, and B203 are located outside any known groundwater plume; portions of Buildings B005N and B025 are located over areas of low level contamination (less than 10 micrograms per liter, Groundwater Services Corporation, 1995)

The NYS Department of Health (DOH) was asked to develop a sampling plan to evaluate the potential for the indoor air in these buildings to be affected by VOCs due to subsurface infiltration from contaminated groundwater or from other sources which may be present in the buildings. To accomplish this, DOH reviewed the floor plans (NYS Office of General Services, 1995), inspected the site and developed this air testing protocol to measure levels of specific VOCs in the buildings under a range of conditions which may occur under normal operations.

Pre-sampling Inspection

DOH staff inspected the five buildings to identify potentially significant contaminant sources, to chose air testing locations and to determine the appropriate operating conditions under which air samples should be collected. DOH staff were accompanied by an IBM representative who provided information on the building construction and prior use.

The buildings are slab on grade construction with elevator pits and with some below grade utility entrance rooms. Below grade pits and other possible breeches in the concrete slab can provide a pathway for pollutants to enter the building, especially under

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Fax:518-458-6372

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conditions where building pressure is less than soll gas pressure. Most of the buildings have been unoccupied for approximately one year, although the mechanical systems have been operated intermittently. DOH staff used a portable organic vapor monitor during the inspection of each of the buildings to measure total VOC levels in the areas inspected. The portable meter can detect elevated levels of trichloroethene but does not respond to 1,1,1-trichloroethane.* Several floor drains, elevator pits, utility entrance points (electrical and steam lines), cracks in concrete slabs and exterior perimeter manhole covers were surveyed for VOCs. Areas in the buildings where chemical solvents were reported to have been used by IBM were also surveyed for VOCs.

^{*}The portable VOC monitor is a Photovac microtip model HL2000 which measures photoionizable organic compounds with a electron voltage potential of 10.6 eV or less. The meter response is relative to isobutylene, the calibration gas. Some of the compounds identified at the site such as trichloroethene, tetrachloroethene and 1,1-dichloroethene are detected by the instrument with a detection limit of about 0.2 parts per million. The voltage potentials of several of the compounds at the site such as 1,1,1-trichloroethane, 1,1-dichloroethane, carbon tetrachloride and methylene chloride are higher than 10.6 eV and these compounds are not detected by the Microtip

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Findings

- No chemical odors were noticed except for odors of apparent elevator hydraulic fluid
 in the elevator pits.
- All of the floor drains inspected under the raised floor systems were plugged. The IBM representative explained that these drains were connected to the industrial waste collection system.
- All of the elevator pits were dry with no observed signs of past groundwater infiltration. Small quantities of hydraulic fluid were present in some elevator pits.
- The utility room in the southeast corner of Building B202 is about ten feet below grade. Steam lines and chill water lines enter the building through this room. There was some standing water on the floor. It was unclear whether the water was from a leaking steam fitting or from groundwater infiltration. VOC levels in this room were 0.2 to 0.3 parts per million.
- VOC levels were not detected in most of the areas monitored. Responses were obtained in a few areas, but the levels were all less than 0.4 parts per million. The areas where slightly elevated responses were obtained included: the steam pipe service entrances in Buildings 201 and 202, outdoor manhole covers near the Building 203 loading dock and near the perimeter of Building 202, and in the sidewalk/wall joint outside Building 203 west entrance. No positive readings were obtained in areas where solvents were reported to have been used by IBM.

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The slightly elevated readings obtained in Building 202 may be in part attributed to instrumental drift (zero drift) under high humidity conditions. It was raining at the time Building 202 was inspected, and measurements were taken in very humid areas including the sub-surface utility room and outdoors. Also, the final calibration check for the instrument showed 0.2 to 0.3 parts per million for carbon filtered air and the final reading of the 102 parts per million calibration gas was 107 parts per million.

Discussion

Heating, ventilating and air conditioning (HVAC) systems were not operating at the time of the inspection nor were they inspected. The operation of an HVAC system may influence migration of pollutants into a building. Negative air pressure in the lowest floor (not an infrequent situation) of a building could pull any contaminated soil gas in from the surrounding soil through breeches in the foundation. Other factors which could affect soil gases include: barometric pressure, temperature, wind direction and speed, HVAC system operations, open/closed doors and the integrity of the foundation.

Recommendations

Sensitive air testing for individual VOCs should be performed in all five buildings. Prior to sampling, the HVAC systems should be operated for at least 48 hours in their normal occupied building mode. During air sampling, ventilation systems in the building should be set to simulate conditions which would optimize migration of soil gas into the building. This would involve operating the building with minimum ventilation. The outdoor air intake dampers should be in their minimum open position as would occur on

November 8, 1995

very hot or very cold days. Any economizer controls should be manually locked out to prevent over-ventilating the building. Any normally used adjustments, such as night setback or morning warm-up, should be included. The systems should warm or cool the buildings to normal set-point temperatures.

Air testing should be performed by a laboratory certified by the NYS Department of Health Environmental Laboratory Approval Program. An acceptable analytical method capable of identifying and quantifying (at low part-per-billion levels) the following compounds should be used: trichloroethene, tetrachloroethene, methylene chloride, earbon-tetrachloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, and any other compounds identified in significant quantities in contaminated groundwater or soil gas at the site. Samples should be collected for a period of at least two hours to obtain a sufficient time-weighted average and at a height of three feet. Outdoor air samples should be collected simultaneously with indoor samples to determine the contribution of outdoor air contaminant levels at the time of sampling. The attached schedule lists the suggested sampling locations in the buildings.

References;

Bramon, 1995. Personal conversation with Steve Bramon, IBM, November 8, 1995

Casper, 1995. Personal conversation with Gary Casper, NYS Department of Environmental Conservation RCRA Program.

Chinery, 1995. Personal Conversation with Robert Chinery, NYS Department of Health, November 8, 1995.

NYSDOH BTSA/BEEI

Fax:518-458-6372

Jan 30 '96 11:30 P.08

November 8, 1995

Groundwater Services Corporation, 1995. IBM Kingston, NY, 1994-95 Annual Groundwater Monitoring Report, September, 1995.

NYS Office of General Services, 1995. Data Center Relocation Building Evaluation Report, IBM Kingston Complex, March 31, 1995.

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November 3, 1995

INDOOR AIR SAMPLING LOCATIONS IBM KINGSTON

Building 005N - 1st floor, north end of open floor space, west side 1st floor, south end of open floor space, east side 2nd floor, centrally located office 3rd. floor, microfiche area

Building 025 - 1st floor hallway outside elevator bank 1st floor office north west corner 2nd floor office 3rd floor office

Building 201 - 1st floor office in SW corner 1st floor office in NE corner 2nd floor office

Building 202 - 1st floor west side open area 1st floor SE comer 2nd floor office 3rd floor office 4th floor office

Building 203 1st floor raised floor area 2nd floor laboratory D

#53070442

INDOOR AIR QUALITY INVESTIGATION

Former IBM Kingston, New York Complex

October 1996

Prepared for:

ALAN GINSBERG Ulster Business Complex 114 Highpoint Road Scarsdale, New York 10583

Prepared by:

ERM-NORTHEAST, INC. 501 New Karner Road Suite 7 Albany, New York 12205

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1.0 INTRODUCTION

On 10 and 12 September 1996, ERM-Northeast, Inc. (ERM) conducted an indoor air quality investigation at the former IBM facility in Kingston, New York. The evaluation was performed for Mr. Alan Ginsberg at the request of Mr. Michael Ahern of Divney Consulting and was conducted by Ms. Regina Keenan, CIH, ERM Project Industrial Hygienist.

The assessment was conducted to determine if groundwater contamination at the site resulted in elevated airborne levels of organic chemicals. Measurements of organic chemicals were made in every building at the site (with the exception of Buildings 005N, 025, 201, 202 and 203 which were previously surveyed by the New York State Department of Health) with a photoionization detector (PID). Further air sampling, utilizing a sensitive analytical method with a very low detection limit, was performed in three buildings (001, 003 and 024) located above known areas of maximum ground water contamination, and in ambient air as a background measurement.

The results of both the walk-though survey and air sampling for organic chemicals conducted at the IBM Kingston facility on 10 and 12 September, 1996, indicate that the concentrations of volatile organic compounds do not exceed applicable guidelines and do not preclude occupancy of these buildings.

The report is divided into the following additional sections: Sampling Methodology (Section 2.0), Results and Discussion (Section 3.0), Summary (Section 4.0) and Attachments, presenting the groundwater contamination figures, air sampling data (Tables 1, 2 and 3) and associated documentation.

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2.0 SAMPLING METHODOLOGY

A full walk-through of the facility (exclusive of the areas previously surveyed by the New York State Department of Health) was conducted on 10 September, 1996. Volatile organic compound (VOC) concentrations were recorded at representative locations inside and outside the buildings. Some telephone rooms in Building 005S were locked and therefore were not accessible. Fan rooms and areas with high voltage equipment also were not accessible. Buildings 052 and 064 were resurveyed on September 12th to determine if elevated readings recorded on September 10th were actual or if they were due to high humidity, which can affect instrument (photoionization detector) function. Sampling locations were designated by column locations, office identifications, or descriptions (for example, electroplating room, north corner) for areas in which columns or offices were not identified.

Screening for all organic chemicals was performed with a Photovac Microtip Model HL2000 equipped with a 10.6 eV lamp. The Microtip was calibrated daily prior to use with clean air and with 100 parts per million (ppm) isobutylene gas. This instrument is therefore capable of detecting organic compounds with an electron voltage potential less than 10.6 eV, and is sensitive to a number of contaminants detected at the site, including trichloroethylene, tetrachlorethylene (perchloroethylene), and 1,1-dichloroethylene. Due to the lack of readings exceeding zero on the afternoon of September 10th, the Microtip was periodically checked with organic vapor sources. It demonstrated response to both a magic marker and spray paint. The battery level was also checked approximately every two hours to ensure accurate readings.

Prior to the site visit, Groundwater Annual Monitoring Reports for the facility were reviewed to determine sampling locations at the site. Figures 4-11 and 4-12 of the 1995 report (presented in Attachment 1) indicate gradients of 1,000 micrograms per liter (ug/l) of the trichloroethane series (trichloroethane and its potential breakdown products) under Building 024 (B024) and under the southern portion of B001. Gradients of 100 ug/l were documented under B003. The trichlorethylene series indicates gradients of 100 ug/l under B001 and B003. The 12 April 1996 Soil Gas Survey and Sewer Systems Sampling also indicated that the east central portion of Building 003 may have elevated levels of VOCs due to waste pipes in this area.

Air sampling was therefore conducted in six interior locations in the three buildings located above the areas of the highest groundwater contamination and in two locations outside the buildings. The selected sites included two locations in B024, two in B001 and two in B003. The samples collected in Buildings 001 and 003 each included one near the center hallway and a second in the south central portion of each building. Exterior sampling locations included the southern perimeter and northeastern perimeter (facing 005N) of B003.

An air sampling methodology was selected which allows detection of a wide range of organic solvents in the parts per billion (ppb) or microgram per cubic meter (ug/m3) range. Samples were collected on Carbotrap 300 thermal desorption tubes with SKC air monitoring pumps set at a flow rate of from 50 to 100 milliliters per minute. The pumps were calibrated with a primary standard before and after sampling. Samples were collected from four to six feet from the ground to measure airborne concentrations representative of the human breathing zone. Additional

ERM-NORTHEAST

samples were collected in each sampling location on charcoal tubes to assist the laboratory in equipment calibration.

The thermal desorption tubes were desorbed immediately prior to shipping and were shipped in polycarbonate canisters to prevent contamination. Samples were sealed immediately after collection and shipped by overnight delivery to Wisconsin Occupational Health Laboratory (WOHL) in Madison, Wisconsin, for analysis of organic chemicals by gas chromatography/mass spectroscopy (modified EPA TO014 method). WOHL is an American Industrial Hygiene Association accredited laboratory. A trip blank was included for quality control. All samples were recorded on laboratory chain-of-custody forms provided to WOHL. Air sampling sheets, chain-of-custody documentation and laboratory analytical results are presented in Attachment 3.

2.1 ENVIRONMENTAL CONDITIONS

On September 10th, the humidity was approximately 70% in the morning and declined throughout the day. The humidity on September 12th was about 50% and remained constant. There was no precipitation on either day of the survey.

In general, the buildings were well maintained and in fairly good condition. Cracks and other forms of disrepair in the floor that would promote the dispersion of subsurface contamination were not noted. Monitoring in recessed portions of the floor in the test labs did not demonstrate higher concentrations of organic vapors. There were roof leaks in a number of areas in most vacant buildings, however, and heaves were noted in the flooring in the perimeter areas of Buildings 003 and 001.

Buildings B022, B035, B051, B032, B033, B042, and B043 were occupied and ventilated. The remaining buildings were vacant at the time of the survey with the photoionization detector. The ventilation system for Buildings 001, 003 and 024 were started on September 11th to simulate normal operating conditions for the air sampling conducted on September 12th. These units are rooftop units. Outside air intakes were set at minimum levels, however, to limit the potential for dilution of contaminants present in the buildings.

Air monitoring is considered representative of the day and conditions under which sampling was performed. The introduction of industrial processes, equipment, additional remediation, or ventilation changes may alter sampling results.

3.0 RESULTS AND DISCUSSION

3.1 PHOTOIONIZATION DETECTOR RESULTS

The data presented from the walk-through of the facility is presented in Table 1 of Attachment 2. It is listed in the order in which the survey was conducted, beginning at 9:00 am and concluding at approximately 4:00 pm. The larger buildings were surveyed in a transect manner. Buildings 023, 022, 024, 021, 001, 002, 003, 004 and 005 are continuous. Columns in building 023 through 5 are arranged in a grid, with #1 designating the north end of the building, ascending to #26 on the south side. The letter A designates the west end of the buildings, ascending to Z at the east side of Buildings 001 and 003. Building 4 and 5 South are lettered from AA on the west side of B004 to AM on the east side of B005. Buildings 022, 023, 024 and 005 are also marked with midpoint columns: an "a" designation is used in 022, 023 and 024 and a "b" designation in 005.

A number of the outlying buildings, 052, 043, 042, 033 and 051, also have designated grid patterns. B042 and 043 ascend from A to E from east to west; B033, 051 and 052 descend from N, F, and H, respectively, from east to west. B042, 043 and 051 ascend numerically from north to south; B052 and 033 ascend from south to north.

PID measurements obtained during the walk-through survey did not indicate widespread or localized chemical contamination. Readings above background may be attributed to interference from humidity or a specific source, such as the inks in the Rylance print shop. Moving between areas with different relative humidities, such as the interior and exterior of a building, generally can affect readings by up to a few parts per million.

ERM-NORTHEAST

Some of the initial outdoor readings in the morning of September 10 exceeded zero. No trucks or lawnmower activity was noted at that time, although vehicle traffic was intermittent throughout the day.

Elevated readings were recorded in Buildings 052 and 064 on September 10th. These areas were unventilated and are not located over the VOC plumes at the facility. Rain fell during the previous night and it is likely that high humidity in the buildings affected the photoionization detector. These buildings were resurveyed on September 12th. Ambient, or background, readings on the 12th were higher than on the 10th. This could be due to the heavy use of lawnmowers on the grounds of the facility on the 12th, or from humidity. Measurements in B052 and B064 on September 12th were approximately a third of the measurements on September 10th and were only slightly higher than ambient air readings on that day. The elevation appears to be an artifact of the high humidity in these two buildings.

3.2 THERMAL DESORPTION RESULTS

Thermal desorption air sampling was performed in six locations in the building and two exterior locations on September 12th after overnight operation of the HVAC system in these areas. The results of the thermal desorption air sampling is presented in Tables 2 and 3 of Attachment 2. Table 2 reports the concentrations at each location and Table 3 summarizes the results for all locations at the site. Expected ambient air concentrations and OSHA Permissible Exposure Limits (PELs) are provided for comparison. OSHA regulates chemical exposure in the workplace through the establishment of PELs, which are maximum 8-hour time-weighted average concentrations. Exposures at concentrations less

than or equal to the PEL are not expected to cause harmful health effects in workers. Air sampling confirmed that airborne chemical concentrations did not exceed background levels.

After an initial scan to identify potential peaks (compounds), each sample was analyzed for the following compounds: n-hexane, acetone, 1,2-dichloroethylene, methyl chloroform (1,1,1-trichloroethane), methyl ethyl ketone, isopropanol, ethanol, methylene chloride, benzene, trichloroethylene, a-pinene, chloroform, perchloroethylene, toluene, b-pinene, ethyl benzene, n-butanol, xylene, d-limonene, propylbenzene, styrene, butyl cellosolve, 1,1-dichloroethane, and 1,2-dichloroethane. Subsequent manual review of the data for 1,1-trichloroethane indicated a concentration exceeding the detection limit, but less than the quantitation limit, in three samples. The concentrations of all detectable compounds are presented in Tables 2 and 3. The majority of detected compounds were above the detection limit for the compound, but were less than concentration that can be accurately quantified (quantification limit). Compounds with estimated concentrations are designated by an asterisk in Tables 2 and 3.

During sample analysis, three samples were destroyed. These samples included the sample in the southern end of B001 and the two exterior samples. Due to the loss of the samples obtained from outside the building, data from a compilation of national surveys on ambient air concentrations of VOCs has been provided for comparison in Tables 2 and 3. This data was originally presented in an article summarizing the current literature on chemical concentrations in ambient air, "Concentrations and Transformations of Hazardous Air Pollutants" by T. Kelly, R. Mukund, C. Spicer, and A. Pollack, in <u>Environmental Science and</u>

<u>Technology</u>, Vol. 28, 1994. Sample results indicate that all detectable compounds were in extremely low concentrations and, with the exception of trichloroethylene, no detected chemicals exceeded the expected ambient air concentrations.

Chlorinated hydrocarbons were detected in each building (although not in each sample) but, again, are all in extremely low concentrations that would not be associated with health problems for occupants. The presence of chlorinated compounds in minute concentrations is common in office settings. Perchloroethylene was detected in three locations, but in concentrations less than those reported for ambient air. Table 3 demonstrates that the estimated concentrations (0.5 to 1.0 ug/m3) of trichloroethylene, detected in Building 001 and at one location in Building 003, slightly exceeds the reported ambient air concentration of 0.4 ug/m3. These reported concentrations, however, are at the lower limit of detection for the compound. In addition, a 1989 World Health Organization study reported that levels up to 20 ug/m3 were detected in 90% of the office environments examined. The reported concentrations are less than the detection limit of organic sampling with charcoal tubes (used for OSHA compliance), and are also less than one five-hundred thousandth of the allowable OSHA exposure limit for a workday.

4.0 SUMMARY

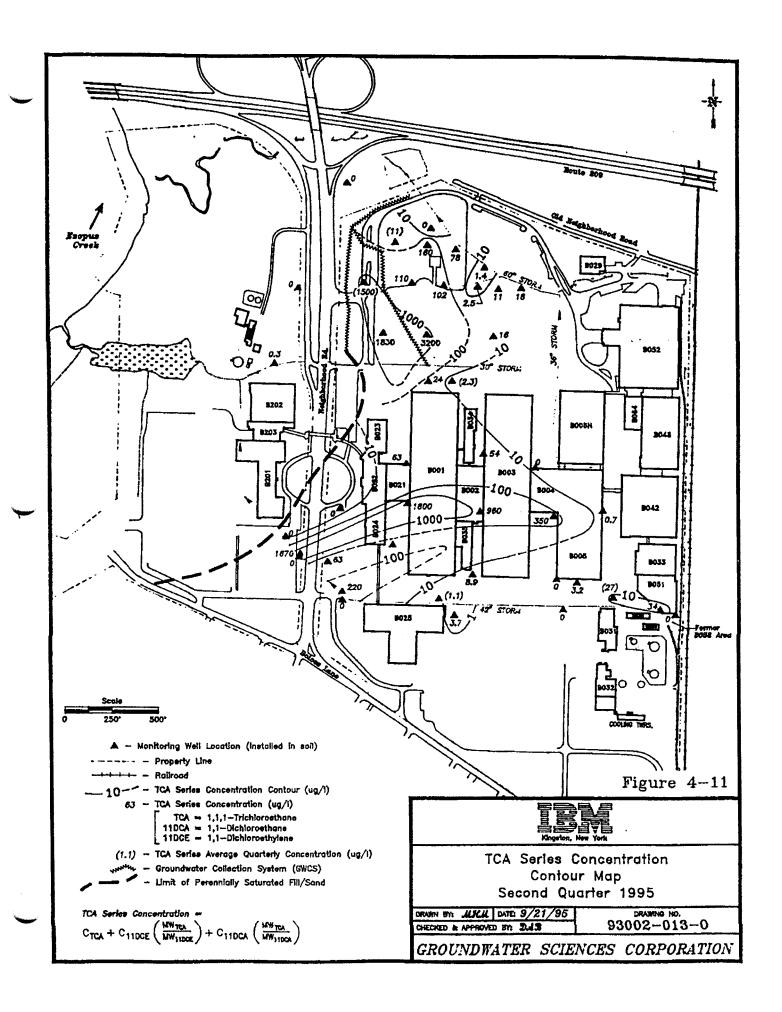
On 10 and 12 September, 1996, an indoor air quality investigation was conducted by ERM-Northeast at the IBM Kingston facility to determine if groundwater contamination at the site resulted in elevated airborne levels of organic chemicals. Measurements of organic chemicals were made in every building at the site (with the exception of previously surveyed Buildings 005N, 025, 201, 202 and 203) with a photoionization detector (PID). Thermal desorption air sampling, selected for its low detection limit, was performed in three buildings (001, 003 and 024) located above known areas of maximum ground water contamination, and in ambient air as a background measurement.

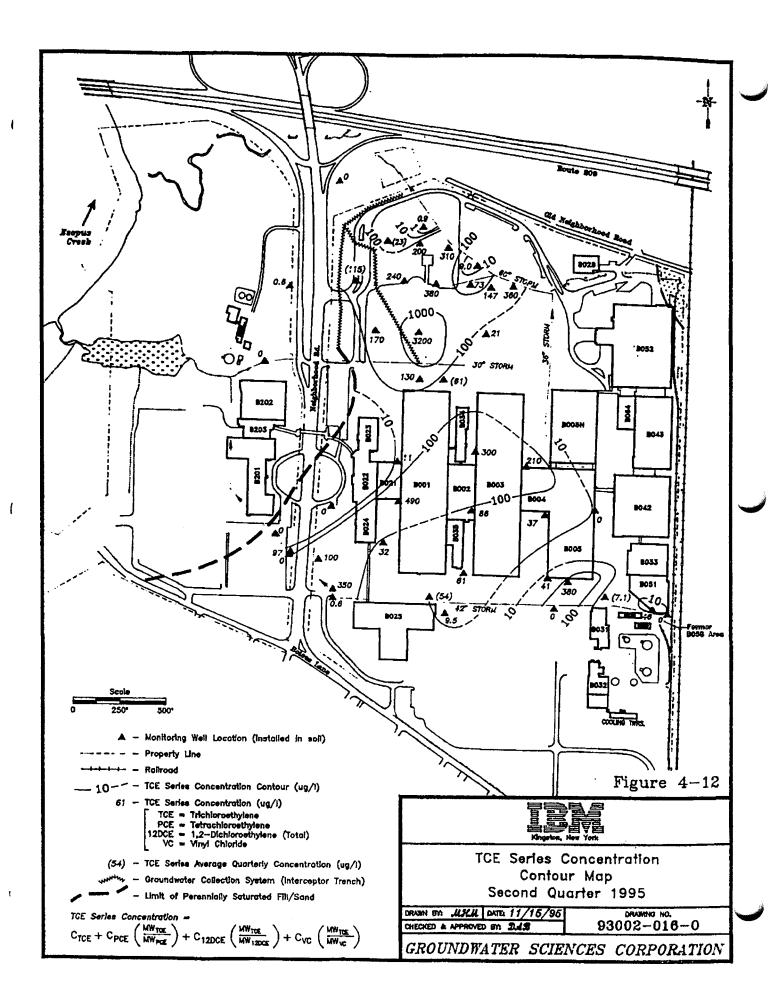
The maximum measurements obtained in any location during the facility walk-through with the PID only slightly exceeded background (ambient) levels. These elevations are likely to be attributable to humidity affecting instrument function. Thermal desorption results demonstrate that VOC concentrations in the sampled buildings were in the range of ambient air concentrations reported in the literature. Data from both the walk-though survey and air sampling for organic chemicals conducted at the IBM Kingston facility, therefore, indicates that the concentrations of VOCs are significantly less than the levels associated with human health effects and would not be expected to present a hazard to building occupants.

4-1

APPENDIX A GROUNDWATER CONTAMINATION MAPS

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APPENDIX B AIR SAMPLING RESULTS

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

																	corner								
Comments	center of room																elevator, southeast corner				outside 15E				
Office Number/ Location																				Room 10-34				AH24a	005-21
Column		B2-063	A4	B7	B10	B11	C11	H11	H9	F10	D8	D5	F4	C4	G6	G2		AF11B	AH5			17E	24E		:
Concentration (ppm)	11.7-11.9	7.7-8.1	11.1-11.2	7.2	4.7	5.1	4.9	3.4-3.6	1.6-1.9	1.2-1.4	1.4-1.7	1.4-1.5	0.0	0.0	0.0	0.0	0:0	0.0	0.0	0.0	1.5-1.6	0.0	0.0	0.0	0.0
Building	B064	B052																005							

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

Building	Concentration	Column	Office Number/	Comments
	(PPM)		Location	
005	0.0		23W19	
			17W19	
	0.0		19W1	
	0.0		14W8	
	0.0		13W	west end of corridor
	0.0		11W11	
	0.0	AD13b		
	0.0	AE11b		
	0.0	AJ12		
	0.0	AM13b		
004	0.0			
	0.0		UV Cure/	
			Etching Room	
	0.0		004N4-20	
	0.0		004-1-3-2	
	0.0	AAb11		
	0.0	AA14a		
	0.0		Electroplating Room	
600	1.6 - 2.1			south end of building
exterior				
003	0.0	Z18		
	0.0		003E22-21	
	0.0	X20	LAN Room	

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

		r raised floor								r raised floor														
Comments		Open area under raised floor								Open area under raised floor							Loading dock							
Office Number/ Location			Door to Rylance	Printing		003SW23-4		Outside Fan Room	#8			office across from WA1		003E 3-17		003E 6-24		Cafeteria area			003E21-33			
Column	W26	V22			V18		V17			V10	V3		YA1		Z2		<i>X</i> 2		X14	Y12		V11	T14	1712
Concentration (PPM)	0.0	0.0	0.0		0.0	0:0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00
Building	003																						002	

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

Building	Concentration (PPM)	Column	Office Number/ Location	Comments
001	0.0	К9		-
	0.0	K14		
021	0.0	J15		
	0.0	F11		
021	0.0	G15		
	0.0	F11		
	0.0		kitchen, near Hobart	
			mixers	
	0.0		center of cafeteria	
034	0.0		telephone	
	~~~		switchroom	
	0:0		room south of	
			telephone room	
***			switchroom	
	0.0		mechanical room	
			substation	
	0.0		substation 034-2	
	0.0		substation 034-3	
	0.0		near bay doors	
023	0.0			north entrance
exterior				
023	0.0		023-1-7-8	
	0.0	Da80232N		Second floor
023	0.0	Ca4a0232N		Second floor
	0.0	Da50232N		Second floor

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

		, ,		
Building	Concentration	Column	Ottice Number/	Comments
	(PPM)		Location	
023	0.0		023-2-3-11	Second floor
	0.0	C6b0232N		Second floor
	0.0		023-2-5-10	Second floor
	0.0	Ba9 0232		Second floor
	0.0		023-2-7-12	Second floor
	0.0	Ba60232N		Second floor
	0.0	Ba4a0232N		Second floor
	0.0	BA60231		
	0.0	C4A0231		
	0.0		023 12-6	
	0.0		023-14-12	
	0.0	DA80231		
	0.0	BA9A0231		
	0.0		8023-1	
	0.0	D90231		
022 exterior	0.0			Front lobby entrance
022	0.0	Ca110222N		Second floor
	0.0		2-9-1A Flex work Center	Second floor
	0.0	D13A0222		Second floor
	0.0		Outside RICD Library	Second floor
	0.0	16A0222		Second floor
	0.0		0222-15-16	Second floor
		•		

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

										-															
Comments	Second floor	Second floor	Second floor										Second floor												
Office Number/ Location		0222-12-15		Conference Room I	Conference Room O	Badging	Elevator Near 14-	122-1	02216-B	0221A014017	Security	022-1-9-18					024-2-20		17-024-1		B024W stairwell		024-1-23-14		024-1-22-2
Column	B140222		B11022-2N										D17a0242	Da190242	Da22024Z	Ba21a0242		Ba18a0242		Ba18a0241		Ba20a0241		Ca22a0241	•
Concentration (PPM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.00.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Building	022												024												

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

Building	Concentration	Column	Office Number/	Comments
	(PPM)		Location	
024	0.0	Da190241		
036	0.0		Basement	
	0.0		Floor 1, Over Grate	
	0.0		Wet Lab	
	0.0		Control Room	
	0.0		pH Control System Room South Room	
020	0.0			West side of building
exterior	2			gumma to anto to
029	0.0		Room 116	
	0.0		Women's Bathroom	
	0.0		Northwest Corridor	
	0.0		Room 112	
	0.0		Room 114	
	0.0		Room 106	
	0.0		Room 109	
	0.0		Room 108	
	0.0		Room 107	
	0.0		Room 105	over drain
	0.0		southeast corner	
	0.0		Room 103	
	0.0		Mezzanine	
051	0.0		Loading Dock	
٠	0.0	•	1-051, Storage	
	0.0		Across From 4-051	

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

Comments																				٠			
Office Number/ Location	Southeast Loading Dock	Room 5-051	Cafeteria Areas	Room 051-1-4-11	Room 051-1-2-10F	Office manager's	office	Oil drum storage	area	Compressor Room	Nutmeg Storage	Center, East Wall	Center, West Wall	Center, North Wall	Center, South Wall	West Loading Dock			Basement	Southeast wall	Southeast corner	Control room	
Column																							
Concentration (PPM)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0:0	0.0		0.0	0.0	0.0	0.0	
Building	051							032									031	exterior					

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

ents																						
er/ Comments	ding	o. 1F I center	ith wall	rth wall	ner	rner	rner		ece		age											
Office Number/ Location	west side loading dock	substation No. 1F motor control center	basement south wall	basement north wall	northeast corner	Southwest corner	northwest corner	lobby	west side office	田	outside Heritage	Center	loading dock	west wall								
Column															0426C	042C1	F3	G13	C2	E15	D17	D19
Concentration (PPM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Building		031						033														

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 10 September 1996

S																								
Comments																								
Office Number/ Location																								
Column	E18	E15	D13	C10	A10	B2	#Q	E2	transformer room	B12	B08	B15	B19	loading dock	A15	A11			lobby	northwest wall	printing press	over open inks	northeast wall	
Concentration (PPM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0:0		0.0	0.0	0.0	2.5 - 3.8	1.2 -1.3	
Building	043																035	exterior	035					

All locations are the first floor unless otherwise noted.

Table 1 - Photoionization Detector Readings IBM Kingston Buildings 12 September 1996

All locations are the first floor unless otherwise noted.

Table 2 - Thermal Desorption Sampling Results IBM Kingston Buildings 12 September 1996

Building/	Sampling	Contaminant	Concentration	Reported	OSHA PEL
Location/	Time		(ng/m ₃ )	Ambient	(ng/m ₃ )
Sample #	(min.)			Concentrations	
•				(ug/m³) ^A	
B 024/ Column	86	methyl chloroform	1.0*	2.3	1,900,000
Ba20a-24/		a-pinene	1.0*	no data	NE NE
091224A		b-pinene	8.0	no data	R
		toluene	6.0	8.6	752,000
		ethyl benzene	1.0*	1.1	435,000
		total xylenes	2.0*	10.7	435,000
		propylbenzene	0.3*	no data	巴巴
		styrene	0.3*	9.0	426,000
		butyl cellosolve	6.0	no data	NE
B 024/ Column	83	a-pinene	1.0*	no data	NE
Da22a-024/		perchloroethylene	0.2*	1.7	000′089
091224B		foluene	5.0	9.8	752,000
		ethyl benzene	0.5*	1.1	435,000
		total xylenes	2.0*	10.7	435,000
		propylbenzene	0.2*	no data	E
		styrene	0.2*	9.0	426,000
		butyl cellosolve	5.0	no data	NE

A milligram (mg.) equals 1,000 micrograms (ug.). Note: NE: A

None Established.

OSHA PELs are maximum concentrations established to protect workers.

Quantity is estimated as the concentration is less than the quantification limit of the method.

From "Concentrations and Transformations of Hazardous Air Pollutants" by T. Kelly, R. Mukund, C. Spicer, and A. Pollack, in Environmental Science and Technology, Vol. 28, 1994.

Sample destroyed during laboratory analysis. ß

Building/	Sampling	Contaminant	Concentration	Reported Ambient   OSHA PEL	OSHA PEL
Location/	Time (min.)		$(ng/m^3)$	Concentrations	(ng/m³)
Sample #				(ng/ mc)	
B 001/ Column	100	methyl chloroform	1.0*	2.3	1,900,000
001M16/		trichloroethylene	0.5*	0.4	538,000
091201A		perchloroethylene	0.3*	1.7	000′089
		toluene	4.0	8.6	752,000
		ethyl benzene	1.0*	1.1	435,000
		total xylenes	3.0*	10.7	435,000
		styrene	0.2*	9.0	426,000
		butyl cellosolve	5.0	no data	NE
B001/Between	79	В			
Columns N23 &					
N22/091201B					
B003/ north of	79	methyl chloroform	1.0*	2.3	1,900,000
Column W17/		trichloroethylene	1.0*	0.4	538,000
091203A		a-pinene	1.0*	no data	NE
		b-pinene	0.9	no data	NE
		perchloroethylene	1.0*	1.7	000'089
		toluene	0.9	9.8	752,000
		ethyl benzene	1.0*	1.1	435,000
		total xylenes	3.0*	10.7	435,000
		propyibenzene	1.0	no data	EN EN
•		styrene	0.3*	9.0	426,000
		butyl cellosolve	0.9	no data	NE

Quantity is estimated as the concentration is less than the quantification limit of the method.

Note: A milligram (mg.) equals 1,000 micrograms (ug.).

E: None Established.

OSHA PELs are maximum concentrations established to protect workers.

From "Concentrations and Transformations of Hazardous Air Pollutants" by T. Kelly, R. Mukund, C. Spicer, and A. Pollack, in Environmental Science and Technology, Vol. 28, 1994.

Sample destroyed during laboratory analysis.

Table 2 - Thermal Desorption Sampling Results IBM Kingston Buildings 12 September 1996

Building/	Sampling	Contaminant	Concentration	Reported	OSHA PEL
Location/	Time		(ng/m ₃ )	,	(ng/m³)
Sample #	(min.)			Concentrations	
. J. J	`			$(ug/m^3)^A$	
B003/ north of	72	a-pinene	1.0*	no data	NE
Column W23/		b-pinene		no data	巴
091203B		toluene	3.0*	9.8	752,000
		ethyl benzene			435,000
		total xylenes		10.7	435,000
		propylbenzene		no data	N N
		butyl cellosolve	4.0*	no data	NE
Exterior, east	83	В			
entry, north of					
Column Z3a					
0912EXA					
Exterior, south	87	В			
entry, east of					
W26/					
0912EXB					

A milligram (mg.) equals 1,000 micrograms (ug.) Note:

None Established.

OSHA PELs are maximum concentrations established to protect workers. Sample destroyed during laboratory analysis. Ø

Quantity is estimated as the concentration is less than the quantification limit of the method.

From "Concentrations and Transformations of Hazardous Air Pollutants" by T. Kelly, R. Mukund, C. Spicer, and A. Pollack, in Environmental Science and Technology, Vol. 28, 1994. NE:

Table 3 - Organic Chemical Concentration Ranges IBM Kingston Buildings 12 September 1996

All Locations	All Locations   Contaminant	Concentration	Reported Ambient	OSHA PEL (ug/m³)
		Range	Concentrations	
		$(ug/m^3)$	$(ug/m^3)^A$	
	methyl chloroform	1.0*	2.3	1,900,000
	trichloroethylene	0.5 - 1.0*	0.4	538,000
	a-pinene	1.0*	no data	NE
	b-pinene		no data	NH
	perchloroethylene		1.7	000'089
	toluene		8.6	752,000
	ethyl benzene	•	1.1	435,000
	total xylenes	2.0 - 3.0*	10.7	435,000
	propylbenzene	1.0	no data	NE
	styrene	0.3*	0.6	426,000
	butyl cellosolve	6.0	no data	NE

*Quantity is estimated as the concentration is less than the quantification limit of the method.

Note: A milligram (mg.) equals 1,000 micrograms (ug.).

NE: None Established.

From "Concentrations and Transformations of Hazardous Air Pollutants" by T. Kelly, R. Mukund, C. Spicer, and A.Pollack, in Environmental Science and Technology, Vol. 28, 1994.

OSHA PELs are maximum concentrations established to protect workers.

APPENDIX C
AIR SAMPLING SHEETS, CHAIN-OF-CUSTODY
FORMS AND LABORATORY ANALYTICAL RESULTS

GENERAL INFORMATION	SAMPL	ING INFORMATION	***
Project: Divney IBM -	Area of Coocers: Blde O	124	
Project 1: 1259.002	Countertop near		4
Location: Kingston	Operation:		
Date: 9 1/2/96	Sample Type:	Personal	Area
Sampler: R Kelnan		TWA	STEL
Employee Information:	Sampling for:		İ
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organics		
Job Tide: -			
Comments:			
	Sampling Media: <u>Carbo</u>	trop	
CONTROLS	Sampling Device:		
PPE:	Sample #: 091224 A		
	Blank Sample #:		1
	Draeger Tubes:		
Engineering: HUAC syptem on since 9/11	Chemical	Time	Reading
V			<del></del>
		<del></del>	
Comments:	<del>- 4</del>		
	woi woi	RK AREA DIAGRAM	
PUMP INFORMATION			
Model: SKC	-		
Serial/Pump #: 527449			
Pump Calibration (method):			
Pre: 18.1 LPM POR: 18.2 LPM 78.2 LPM 78.8 LPM		····	
		ANALYSIS	
78.4 LPM 79.0 LPM	Method: Thermal	desorption	
Final: 78.6 LPM		<u> </u>	
Time: 86	Laboratory: WOHL		
(on) <u>0856</u> (off) <u>1022</u> /(on)(off)	Date:		
Final: Min.	Results:		
Volume:6.79L	Chemical	Results Time	TWASTEL
Comments:			
	Blank:		
	<u> </u>		

## AIR SAMPLING DATA SHEET

GENERAL INFORMATION	SAMP	LING INFORMATION	
Project: Divney IBM	Area of Concern: Bldl	024	
Project 1: 125 1.00 2	Countertop v	van Baza	-24
Location: Kingston	Operation:		
, Δ,	*****		
Date: 9/0/96	Sample Type:	Personal	Area
Sampler: R Klenan		TWA	STEL
Employee information:	Sampling for:		
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organics_		<del></del>
Job Tide:		<del></del>	
Comments:	A 0	<i>(</i>	
	Sampling Media: A C	rancoal	
CONTROLS	Sampling Device:		
PPE:	Sample 8: 091224	ACH	
	Blank Sample #:		
	Draeger Tubes:		
Engineering:	Chemical	Time	Reading
Comments:			
		•	
		ORK AREA DIAGRAM	
)			
PUMP INFORMATION			
Model: SKC			
Serial/Pump #: 527449			
Pump Calibration (method):			
Pre: 144.0 LPM Post: 130.5 LPM			
144.6 LPM 129.7 LPM		ANALÝSIS	
LPMLPM	Method:		
Final: 137-0 LPM		<del></del>	
Time:	Laboratory:	· · · · · · · · · · · · · · · · · · ·	
(on) 1024 (off) 1129 /(on) (off)	Date:		
Final:min.	Results:		
Volume: 8,31 L	Chemical	Results Time	TWASTEL
unents:	1	<del></del>	
	Blank:		

GENERAL INFORMATION	SAMI	PLING INFORMATION	
Project: Divney 1BM	Area of Concern: Blaz	24	
Project #: 1259.402	desh in office ?	ur. Column Da c	22024
Location: Kingston	Operation:		
7 6.		·· <del>·</del>	
Date: 9/12/96	Sample Type:	Personal	Area
Sampler: R Keevan		TWA	STEL
Employee Information:	Sampling for:		
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organi < C		
Job Tide:	<del></del>		
Comments:	Sampling Media: (2160	here	
	Sampling Device:		
CONTROLS			
PPE:	Sample #: 091224		
	Blank Sample #:		
Engineering: HUAC on since 8/11	Draeger Tubes:		
Engineering: HUAC on since \$111	Chemical	Time	Reading
			<del></del> }
Comments:		-	<del></del>
	· · · · · · · · · · · · · · · · · · ·		
	W	ORK AREA DIAGRAM	
PUMP INFORMATION			
Model: SKC			
Serial/Pump #: 5/2552	-		
Pump Calibration (method):			İ
Pre: <u>952</u> LPM POR: <u>100-0</u> LPM			
75,7 LPM 100-2 LPM		ANALYSIS	
LPMLPM	Method: Thermal	desorption	
Final: 1097.8 LPM			
Time: 802 1025	Laboratory: WOHL		
(on) 902 (off) 1025 /(on) (off)	Date:		
Final: 93 min.	Results:		
Volume: 8.13 L	Chemical	Results Time	TWA/STEL
Comments:			
	Blank:		

GENERAL INFORMATION	SAMP	LING INFORMATION	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Project: Diuney IBM	Area of Concern: Blde	024	
Project #: 1259.002	destinolije	rcolumn Da	222028
Location: Kingston	Operation:		
	•		
Date: 9/2/36	Sample Type:	Personal	Area
Sampler: R Koenan		TWA	STEL
Employee Information:	Sampling for:		
Employee Name:	Chemical (	TWA	STEL
Social Security#:	Urganics		<del></del>
Job Tide: :			
Comments:	Sampling Media: Chan	1001	· · · · · · · · · · · · · · · · · · ·
CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR	Sampling Device:		,
CONTROLS		Dril	
PPE:	Sample #: 03/224		
	Blank Sample #:		
	Drueger Tubes:	<b></b>	D P
Engineering:	Chemical	Tune	Reading
			<del></del>
Comments:			
	No. 10 No. 10 No.	of Land to the second of the second	co Ware a Sec. 12
		ORK AREA DIAGRAM	
PUMP INFORMATION			•
Model: SKC			
Serial/Pump #: 512552	_		•
Pump Calibration (method):			
Pre: 203, LPM Post: 195.4 LPM			
		ANALYSIS	
2/9-2 LPM LPM	Method: <u>NIOSH</u> [	5010	
Final: 202.7 LPM			
Time:	Laboratory:		
(on) 1026 (off) 1132/(on) (off)	Date:		
Final: 65 min.	Results:		
Volume: 13.20 L	Chemical	Results Time	TWASTEL
uments:			
	Blank:		

GENERAL INFORMATION	SAMPI	ING INFORMATION	
Project: Divney IBM	Area of Concern: Blag C	01-Table	
Project #: 1259.002	Operation: Corridor n	air col	00/01/
Location: Kingston	Operation: The victor in	ear column	00011116
Date: 9/12/36	Sample Type:	Personal	Area
Sampler: R Klenan		TWA	STEL
Employee Information:	Sampling for:		, , , , , , , , , , , , , , , , , , ,
Employee Name:	Chemical	TWA	STEL
Social Security#:	Dogonies		i
Job Tide: -			
Comments:	Sampling Media: Carlony	h- 1-	
	Sampling Device:	mcp	
· CONTROLS			
PPE:	Sample #: <u>091201A</u>		
	Blank Sample #:		
Engineering: HUAC on since 9/11	Draeger Tubes:		
Engineering: HUAL on SANCE III	Chemical	Time	Reading
			•
			-
Company			
Comments:			•
	. The same of the control of the same		
	wo	RK AREA DIAGRAM	
PUMP INFORMATION			•
Model: SKC			
Serial/Pump #: 514622	_		•
Pump Calibration (method):			
Pre: 58.9 LPM Post: 62.7 LPM			
57.5 LPM <u>164.3</u> LPM		ANALYSIS (	
58,3 LPM 64.3 LPM	Method: Thermal	desorp	
Final: 60.92 LPM			
Time:	Laboratory: WOHL		
(on) 910 (off) 1050 1(on) (off)	Date:		
Final: DO min.	Results:		
Volume: 06,10 L	Chemical	Results Time	TWA/STEL
Comments:			
	Blank:		
		· · · · · · · · · · · · · · · · · · ·	

GENERAL INFORMATION	AA2	APLING INFÓRMATION	
Project: Divney IBM	Area of Concern: Black	261-Table	
Project #: 1259.002	Corsidor near	column 0011	116
ocation: Kingston	Operation:		
, 0			
Date: 9/12/96	Sample Type:	Personal	Area
Sampler: R Keener		TWA	STEL
Employee Information:	Sampling for:		
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organits		
Job Title:			
Comments:		<del></del>	
	Sampling Media: Cha	roal.	
CONTROLS	Sampling Device:		
	Sample #: 0912.01	ACH	
PPE:	Blank Sample #:		
	Draeger Tubes:		
	Chemical	Time	Reading
Engineering:	Cocusa	20113	•
			<del></del>
Comments:			·
	- [		
			Name of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last o
		WORK AREA DIAGRAM	
PUMP INFORMATION	81		
Model:	-		•
Serial/Pump #:  Pump Calibration (method):	-		
Pre: LPM Post: 84.7 LPM	-		
LPM 84,8 LPM		ANALYSIS OF	
	11.00		5 Maria (1980)
LPM LPN	Method: NIOS	H 1500	
Final: SUES LPM			
Time:			
(on) 1052 (off) 1215 /(on) (off)	Date:		
Final: 83 min.	Results:	<u>.</u>	man es a servicios
Volume: 7.06 L	Chemical	Results Time	twa/stel
menu:	_		
	_		
	Blank:		

GENERAL INFORMATION	SAMPLI	NG INFORMATION	Front State .
Project: Divney IBM	Area of Concern: Blde 1	workstati	<del>, , , , , , , , , , , , , , , , , , , </del>
Project 1: 1259.00 2	Test lab between	A	
Location: Kingston	Operation:		
, Ο ,			
Date: 9/12/96	Sample Type:	Personal	Area
Sampler: Recra-	•	TWA _	STEL
Employee Information:	Sampling for:		,
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organics		
Job Tide: -	-	<del></del>	
Comments:	Carl		
CONDANT CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTRO	Sampling Media: Carbot	rop	
CONTROLS	Sampling Device:		
PPE:	Sample #: 09/201.2	≇B_	
	Blank Sample #;		
***************************************	Draeger Tubes:		
Engineering: HUAC system on since 9/11	Chemical	Time	Reading
	**************************************		
		<del></del>	
Comments:	<del></del>		
	Wor	K AREA DIAGRAM	
			70.00 ft. 7 · · ·
PUMP INFORMATION			1
Model: SKC	_		
Serial/Pump #: 51255 (4)			
Pump Calibration (method): (7)  Pre: 79 I PM Post: 79 I PM			
		<del></del>	
		ANALYSIS	
78.9 LPM 82.1 LPM	Method:		
Final: SO.5 LPM			
Time:	Laboratory:		
(on) (om) (om)	Date:	<del></del>	
Final: 79 min.	Results:		
Volume: 6,40 L	Chemical	Results Time	TWA/STEL
Comments;			
	Blank:		

### AIR SAMPLING DATA SHEET

GENERAL INFORMATION	IMAS.	PLING INFORMATION	
Project: Divney IBM	Area of Concern: Black		
Project #: 1259.672	Test labo-to	vein Col NZ3	25N+1
Location: Kingston	Operation:		
Date: 9/12/16	Sample Type:	Personal _	Area
Sampler: R Kleran		TWA	STEL
Employee Information:	Sampling for:		
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organics_		
Job Title: ·			
Comments:	Sampling Media: Cha	nocl	<del></del> i
	Sampling Device:		
CONTROLS			
PPE:	Sample #: <u>091201</u>		
	Blank Sample #:		
	Draeger Tubes:	Time	Reading
Engineering:	Chemical	1 me	Kelding
		· · · · · · · · · · · · · · · · · · ·	<del></del>
			•
Comments:			
	er de souvre dans vivadas v	twife general growing and the	Security Community
		ORK AREA DIAGRAM	
PUMP INFORMATION	M		
Model: SKC			•
Serial/Pump #: 5/2551	-		•
Pump Calibration (method):	. ]		
Pre: 111.3 LPM POM: 1148 LPM			
LPMLPN		ANALYSIS	
//, 2 LPMLPM	Method:		
Final: 1/3, 1 LPM			
Time:	Laboratory:		
(on) 1037 (off) 1140 /(on) (off)	Date:		•
Final: 63 min.	Results:		
Volume:	Chemical	Results Tim	e TWA/STEL
mments:			
	Blank:		

GENERAL INFORMATION	SAMPI	ING INFÓRMATION	
Project: Divney IBM	Area of Coocers: Blog		
Project #: 1259.00 L	, , ,	tchen windo	wledge_
Location: Kingston	Operation: has of the	lumn WIT	
	not 0		
Date: 9/12/96	Sample Type:	Personal	1 Area
Sampler: R Klenar		TWA	SIEL :
Employee Information:	Sampling for:		-
Employee Name:	Chemical	TWA	STEL
Social Security#:	organics	<del></del>	
Job Title:		<del></del>	
Comments:	0.1	/	
	Sampling Media: Carbo	hap	
CONTROLS	Sampling Device:		
PPE:	Sample 1: 091203.	A	1
	Blank Sample #:		
	Draeger Tubes:		
Engineering: HUAC on since 9/11	Chemical	Time	Reading
			*****
		<del></del>	
			1
Comments:			
		•	
	wo		z Wiedy in the control
		KK AKEX DIAGKAM	
PUMP INFORMATION			
Model: SKC			
Serial/Pump #: <u>527709</u> (5)			·
Pump Calibration (method):			
Pre: 924 LPM Post: 1118 LPM			
93.0 LPM 112.8 LPM		ANALYSIS	
927 LPM LPM	Method: Therma	deaph	
Final: 100,5 LPM		= 12.50 971.	
Time:	Laboratory:		
$(00)$ 923 $(00)$ $104^{2}$ $(00)$ $(00)$	Date:		
Final: 79 min.	Results:	<del></del>	
Volume: 7,90 L	Chemical	Results Time	TWASTEL
	-	E 1000	* * * * * * * * * * * * * * * * * *
Comments:	- [	· · · · · · · · · · · · · · · · · · ·	
	Disak		
	Blank:		

### AIR SAMPLING DATA SHEET

GENERAL INFORMATION	SAMPL	ING INFORMATION	ON STATE OF
Project: Divney BM	Area of Concern: Blag		
Project 1: 1259.002	- Microware K		steder
Location: Kingston	Operation: Dant of	column W	<u>+-</u>
de h	morta 0		<del></del>
Date: 91215	Sample Type:	Personal	Area
Sampler: R. Klenon		TWA	STEL
Employee Information:	Sampling for:	<b>***</b> *********************************	
Employee Name:	Chemical Organics	TWA	STEL
Social Security#:	- OT YOUR ES	<del></del>	<del></del>
Job Tide:			
Comments:	Sampling Media: Chan	wal	
»CONTROLS	Sampling Device:		
	Sample #: 09 12 03	RACH	
PPE:	•		; 1
	Blank Sample #: Draeger Tubes:	<del></del>	,
	Chemical	Time	Reading ;
Engineering:	·	\$ 1110V	Resum
Comments:		<del></del>	
		,	•
	TO ASSESSED TO A STREET WAY		
	wo.	RK AREA DIAGRAM	
PUMP INFORMATION			
Model: SKC			
Serial/Pump #: 527709, (5)			
Pump Calibration (method):			
Pro: 169.4 LPM Post: 192.8 LPM			
		ANALYSIS	
LPMLPM	Method: NIOSH	1500	
Final: 18/.   LPM			
Time:	Laboratory:		
(on) 1043 (off) 1146 /(on) (off)	Date:		
Final: 63 min.	Results:		
Volume: 11,4 L	Chemical	Results Time	TWASTEL
mments:	_	-	
	_		
	Blank:		

SAMPI	ING INFÓRMATION	
Operation: With of	W23 colum	
Service Transfer		
Sample Type:		Area
Sampling for:	1 " " .	STEL
Chemical	TWA	STEL ,
Dreamics		, , , , , , , , , , , , , , , , , , ,
Sampling Media: /dr/op+	iob	
-		
Sample #: 09/224E	3	
Blank Sample #:		
Draeger Tubes:		
Chemical	Time	Reading
***************************************		
i		•
A CONTRACTOR OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF TH	RY ADEA DIACRAM	
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Method: 1100111000	alsop!	
1.10117		
Laboratory: WUTT		
Laboratory: WUTT C		•
Date:	Results Time	TWA/STEL
Date:	Results Time	TWA/STEL
Date:	Results Time	TWA/STEL
	Area of Concern: Bldg.  Chow in Con & Operation: with of  Sample Type:  Sampling for: Chemical  Dryamics  Sampling Media: Carbot Sampling Device:  Sampling Device:  Draeger Tubes: Chemical  Air fiels war for Vibr, Lai  Method: Thermal	Sampling for: Chemical TWA  Dryamics  Sampling Media: Larbotrop  Sampling Device:  Sampling Device:  Sampling Device:  Time  Time  Air fielo warmen - blower  for Vibr, Lab?  ANALYSIS

GENERAL INFORMATION	SAMPI	ING INFORMATION:	
Project: Divney BM	Area of Concern: Blad	003-hr Uib	
Project 1: 12 59 502	Chair in loss	across from F	anR10
Location: Kingoton	Operation: north of	rol w 203	
	<u> </u>		
Date: 9/12/9/6	Sample Type:	Personal _	Area
Sampler:		TWA	STEL
Employee information:	Sampling for:	~~~	
Employee Name:	Organis C	TWA	STEL
Social Security#:	1,8000		<del></del>
Job Title: -  Comments:			^
- Community	Sampling Media: Action	trop-Char	coal
CONTROLS	Sampling Device:	7	
	Sample #: <u>091224</u>	soft	·,
PPE:			
	Blank Sample #: Draeger Tubes:		į
Tanianing	Chemical	Time	Reading
Engineering:			
No.			
Comments:			
Conditions.			
	, we	DY ADE'S DUCE AN	
		ORR AREA DIAGRAM	
PUMP INFORMATION			•
Model: SK C			
Serial/Pump #: 512850 (6)			
Pump Calibration (method): 67			
Pre: 177 A LPM POSI: 170 C	0.000		··· ··· · · · · · · · · · · · · · · ·
179.2 LPM 177.8 LPM		ANALYSIS ()	
LPMLPM	Method: <u>N/OSH</u> /	500	
Final: 177,4 LPM			
Time:	Laboratory:		
(on) 10+6 (off) 1150 1(on) (off)	Date:	<del></del>	•
Final: 64 min.	Results:		
" lume: 11,3 L	Chemical	Results Tim	e TWA/STEL
Comments:	-	<del></del>	
	_		
	Blank:		

GENERAL INFORMATION	SAMPL	ING INFORMATION	
Project: Divney IBM	Area of Concern: 1003		
Project #: 1259 902	(chair)	·	
Location: Kingston		31 003	
$O_{i}$	northl	<del></del>	
Date: 9/12/36	Sample Type:	Personal	Area
Sampler: R Klenan		TWA	STEL
Employee Information:	Sampling for:		
Employee Name:	Chemical	TWA	STEL
Social Security#:			
Job Tide: -			
Comments:	. 0. 1		
Control and the State of the Control and the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the	Sampling Media: <u>Carb</u>	mp	<del></del> ]
CONTROLS	Sampling Device:		
PPE:	Sample #: 0912 EX.	<u>4</u>	
	Blank Sample #:		
	Draeger Tubes:	•	
Engineering: HVAC system on since 9/11	Chemical	Time	Reading
J			-
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Comments:			
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	wor	PY ADEA DIAGRAM	
STONE CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTR	7 - 27 3 See 2008 - 3 - 12 - 27 200 - 1 20	ac acabbackar	9800 93 - 4, The Friday
PUMP INFORMATION			
Model: SKC 527426	_		
Serial/Pump #:			
Pump Calibration (method):			
Pre: 63.4 LPM POR: 66.2 LPM			
		ANALYSIS	
68.3 LPM 68.3 LPM	Method:		
Final: 66.3 LPM			
Time:	Laboratory:		
$(on) \frac{944}{(off)} \frac{107}{107} \frac{100}{(on)} 83 \frac{100}{(off)}$	Date:		<del>,</del> — <del> </del>
Final: 83 min.	Results:		
Volume:	Chemical	Results Time	TWASTEL
Comments:			
	Blank:		<del></del>

### AIR SAMPLING DATA SHEET

GENERAL INFORMATION	SAMPI	ING INFÓRMATION	CONTINUE OF
Project: Diuney 1BM	Area of Concern: BOD	east entry	
Project 1: 1259.002	(chair)	V	
Location: Kingston	Operation: 500 7	34 00 3	
diski	<b>45</b> ()		
Date:	Sample Type:	Personal	1 Area
Sampler: Kkeenar		TWA	STEL
Employee Information:	Sampling for:		j
Employee Name:	Chemical	TWA	STEL
Social Security#:		<del></del>	
Job Tide:			
Comments:	Sampling Media: Charas	47	<del></del>
	Sampling Device:		
CONTROLS			
PPE:	Sample #: <u>0912-EX</u>		
	Blank Sample #:		
	Draeger Tubes:		
Engineering:	Chemical	Time	Reading
			<del></del>
Comments:			
			•
	wo.	RK AREA DIAGRAM	
PUMP INFORMATION			
Model: SKC 527426			
Model: St. 12	_		•
Pump Calibration (method):			
Pre: 91.1 LPM POSI: 96.2 LPM			
9 (. 3 LPM LPM	150 x 2x2x82x55000	ANALYSIS ( )	Section 1
91.2 1911			*1.080 *1.09 * * * * * * * * * * * * * * * * * * *
7-7-	Method: <u>N 105 H 1</u>	300	
Final: 43, + LPM			
Time: (on) // 04 (off) /204 /(on) (off)	Laboratory:		·
(41)	Date:	<del></del>	
Final:min. Volume: 5.45 L	Chemical	Results Time	TWASTEL
-osuire;L		11116	• 1 W or 5 wide
mments:	-		
	Blank:		

GENERAL INFORMATION	SAMPL	Ing information	STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE
Project: Diuney 1BM	Area of Concern: 8003		
Project 1: 1259.002	South entry	to B003 p	astol W26
Location: Kingsten	Operation:		
, ~, l	***************************************		
Dete: 9/2/96	Sample Type:	Personal	Area
Sampler: R Kenan		TWA	STEL
Employee Information:	Sampling for:		
Employee Name:	Chemical	TWA	STEL
Social Security#:	Organics	<del></del>	
Job Title: -		***************************************	
Comments:	Sampling Media: Carbe	400	
SOMERANDO ANTONOMO ANTONOMO ANTONOMO POR CARA LA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA M	Sampling Device:	773	
CONTROLS		ದ	
PPE:	Sample #: 0912 EX:	12	
	Blank Sample #:		
	Draeger Tubes:		
Engineering:	Chemical	Time	Reading
		<del></del>	
1. and in about the			
comments: Lawn mowers in operation			
in vicinity; idling truck			1
present for a while			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	wor	RK AREA DIAGRAM	
PUMP INFORMATION			
Model: SK(7 527050(8)			İ
Serial/Pump #:	-		
Pump Calibration (method):			
Pre: 7(, LPM Post: 71.5 LPM			
70.8 LPM 71.8 LPM		ANALYSIS ( )	
70.2 LPM LPM	Method: Therma	l desorp.	
Final: 7/./ LPM	Method: TVQ//VVCeC	= 1000 of .	
Time:	Laboratory:		
(on) 952 (off) / 20 /(on) (off)	Date:		
Final: 87 min.	Results:	<del></del>	
Volume: 6,18 L	Chemical	Results Time	TWASTEL
Comments:	1	· <del></del>	
Other 1934			
	Blank:	-	

GENERAL INFORMATION	SAMPL	NG INFORMATION
Project: Diuney IBM	Area of Concern: 8003	
Project #: 1259. 002	_ South entr	
Location: Kingston	Operation: Cast of U	126
Date: 9/2/96	Sample Type:	Personal Area
Sampler: R Klevan		TWASTEL
Employee Information:	Sampling for:	
Employee Name:	Chemical	TWA STEL
Social Security#:	Organic s	
Job Tide: -		
Comments:	Sampling Media: Char	-00/
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CONTROLS	Sampling Device:	
PPE:	Sample #: 0912 EX	
	Blank Sample #:	
	Draeger Tubes:	·
Engineering:	Chemical	Time Reading
Comments:		
	wor	ik area diagram
PUMP INFORMATION		
		•
Model: SKC 527050	-	•
Serial/Pump #:		
Pump Calibration (method): 171  Pre: 136, 8 LPM Post: 139 L LPM		
Pre: 136, \$ LPM POSI: 137 (_ LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   LPM   L	1.00.11. 849.52.00.00.00.00.00.00.00.00.00.00.00.00.00	2. d
		ANALYSIS
136, 7 LPMLPM	Method: N 10514	1500
Final: 138.3 LPM		
Time:	Laboratory:	
(on) 1121 (off) 1154 /(on) (off)	Date:	<del>~~~~</del>
Final: 33 min.	Results:	
Volume: 4.55 L	Chemical	Results Time TWA/STEL
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ANALYTE: Organiz Screen

CLIENTINROLIECT: KINGTEN LAC- 18171 Building

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	SAMPLER: KERNE	7/36								
	PRESCALIBIKATION DATA (学者等所完整例)。例识如图的不分类的合理的知识的知识	ACHAMMA	HART KRAUE &	16.34.45.5.3.3.3.4.3.6.3.1	W.CRRATTER SAND	Post-Cálmaáin	ON DATA POREST	AN CHEST	POST-CALIBRATION DATA PRESENTE AND LIGHTRIBANCE AND TREES SEE	भा अंदर स्थान्य
	ימין הואנהו	Ţ	27	C)	AVERAGE	PUMP LD.	T)	177	anth Ell	AVERAGE
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CC,	5/4622									21.2
<b>&gt;</b>										113.1
7	527-209									131.1
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S	27050 3504-65	2.EXBC#			12/1	1154			33	4.55
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SM - NO
RM - NO
SRM - NO
ERM - NO

ERM - NORTIIEAST,		1 北京の東京	AVERAGE	78.6	57.8	60.92	100	71.2	66.3	77.7		2 15 · 138855	TOTAL	20	2, c	6.00	6.40	7.90	V	> 48	6.18					
ERM - NO	ph dr	(新语》1898年7月	: E3	79.00		67.3	843		65.3			CONTRACTOR	TOTAL	Transition &	6 CY	35	<u>5</u> ±	H	75	83	12					
	ic Scentosphor Hermal desorphor	<b>斯安德州是杜勒勒</b>	17.2	262	1670.2	64.3	57.5	72.	68.3	71.5		<b>英華公司公司的</b>		ints.											•	
T.	ouic Scr offerm	N DATA PPREST	T)	R. 2	0.00/	62 2		60.9	297	7/.5		(6) 使气息 (4) 人名格勒		STAKE												
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AIR SAMPLING	500	<b>国。安全大学学会</b> 的	AVERAGE	78.7								6.1.1.1.1.6.3.1.1.1.1.1.1.1.1.1.1.1.1.1.		START	200	0/4	3/6	22%	933	٠,١	4.6					
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	ALTH LABORATORY (WOHL) SAMPLE SUBMISSION FORM	
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	78-429-	Rush and priority requests must be prearranged.	Flow 104 PERSE GROUP SAMPLES BY MEDIA USED AND ANALYSIS REQUESTED. BULK AND WIPE SAMPLES SHOULD NOT BE COLLECTED IN PLASTIC BAGS.	(L) ANALYSIS REQUESTED &	Plum CSPECIAL INSTRUCTIONS	Organic Screen	Thermak						<b>-&gt;</b>	Date	
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\ 1	Phone 5/8-4/5 429  Sampling Date 9/12/96  WOHL COMP # 16 84	<b>∀</b>	STED. BI	TIME	OFF									Date	
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608 263-6550 800 446-0403 608-263-6551

Phone

FAX

Wisconsin Occupational Health Lab 979 Jonathon Drive Madison, WI 53713

MAIL SAMPLES AND FORM TO:

SSION FORM (			518-452-4395	sts must be prearranged.
L HEALTH LABO TORY (WOHL) SAMPLE SUBMISSION FORM	Send Results To	Dhose	FAX 5/2-6	<ul> <li>Rush and priority requests must be prearranged.</li> </ul>
BQ TORY (WOE	1	126-67	1686	NORMAL
VAL HEALTH LA	Contact Person Regina Keenan	Phone (18-45-45)	Sampling Date $\frac{1}{2}$ WOHL COMP # $\frac{1680}{2}$	PRIORITY NORMAL
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( WISCONSIN OCCUPATIONA)	BIII TO ERUM NOWHERAT INC.	Albray N/12705	1259.003	ound Tip
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DI EASE GROITE	FOR WOHL USE ONLY	CODE#										CHAIN OF CUSTODY: Relinquished // Poha	MAIL SAMPLES AND FORM TO:

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WOHL) SAN	Send Results To	Phone	Rush	4/13/86	MPLES SHOULD VOLUME	(LITERS)	17.06	7.12	OH.11	11.33	14.8	13.20	5,45	4.55	eived	608 263-6550 800 446-0403 608-263-6551	
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ATIONAL H	Contact  Strain Phone S	Sam	RUSH PRIO	Conect	ER SAMPLING		1 Charded	1 +1	+	+	+	7	+	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Tha Kou	U Wisconsin Occupational Health Lab 979 Jonathon Drive Madison, WI 53713	
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) [N	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	BAGS.	<u>z</u> _	5.06	2.10	6.30	4.54	5.14	6.37	383	12.34		,
TORY (WOHL) SAMPLE SUBMISSION FORM	Phone FAX FAX Sush and priority requests must be prearranged.	US REQUESTED. BULK AND WIPE SAMPLES SHOULD NOT BE COLLECTED IN PLASTIC BAGS.	SERVINE INSTRUCTIONS	Caesa	arbodian	,						Date_	
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	1524291 312196 1686	ED. BULK A	$\overline{}$	83	9	9	70	4		70	33	Date 9/	•
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_	ill To I	PLEASE	FOR	CODE #	1							HAINÓ	aail sai



Wisconsin Occupational Health Laboration

979 Jonathon Drive Madison, WI 53713-3226 Phone: (608) 263-6550 FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 27,1996

ERM Northeast Inc. 501 New Karner Rd.57 Albany, NY. 12205

Company #: 1686

Thermal Desorption Analysis

Nine samples (only five of which were analyzed due to instrument breakdown) were submitted to the Wisconsin Occupational Health Lab for thermal desorption analysis. Samples were analyzed using a modified T014 method. Sample tubes were heated and analyte vapors were collected onto a special trap. The trap was heated and analyte vapors were collected and separated using gas chromatography/mass spectrometry (GC/MS).

The mass spectrometer was calibrated for a compound range up to 1000ng. Compounds which exceed this range are indicated by the comment "Exceeds calibation." Compounds which were not detected appear in the ( total ng/tube) column, with a < MQL value. Compounds which were detected below the MQL are indicated by the comment "quantitation estimated."

If you have any questions concerning this report, please feel free to contact us at 608-263-6550.

Ken christensen / Mark Mieritz (analysts):

Steve Strebel (supervisor):

for Chitester Mand A. Munt

LE NUMBER FIELD NUMBER : 0912 01A 598493

compound		total ng/tube		ug/m3	-	ppb	MQL (NG)	COMMENTS
n-hexane	<	25	<	4	<	1	2	
acetone	<	25	<	4	<	2	2!	5
1,2-dichloroethylene (trans)	<	25	<	4	<	1	2!	5
methylchloroform	<	25	<	4	<	1	2	5
methyl ethyl ketone	<	25	<	4	<	1	2	5
isopropanol	<	25	<	4	<	2	2	5
ethanol	<	25	<	4	<	2	2	5
methylene chloride	<	25	<	4	<	1	2	5
benzene	<	25	<	4	<	1	2	5
trichloroethylene		3		0.5		0.1	2	5 quantitation estimated
a-pinene	<	25	<	4	<	1	2	5
chloroform	<	25	<	4	<	1	2	5
perchloroethylene		2		0.3		0.05	2	5 quantitation estimated
toluene		26		4		1	2	5
b-pinene	<	25	<	4	<	1	2	5
ethyl benzene		4		1		0.2	2	5 quantitation estimated
n-butanol	<	25	<	4	<	1	2	5
xylene total		18		3		1	7	5 quantitation estimated
d-limonene	<	25	<	4	<	1	2	5
propylbenzene	<	25	<	4	<	1		5
styrene		1		0.2		0.04		5 quantitation estimated
' cellosolve		29		5		1	2	5

SAMPLE NUMBER

598495

FIELD NUMBER: 0912 03A

compound		total ng/tube	ug/m3	ppb	MQL (NG)	COMMENTS
n-hexane	<	25	< 3	< 1	25	
acetone	<	25	< 3	< 1	25	
1,2-dichloroethylene (trans)	<	25	< 3	< 1	25	
methylchloroform	<	25	< 3	< 1	25	
methyl ethyl ketone	<	25	< 3	< 1	25	
isopropanol	<	25	< 3	< 1	25	
ethanol	<	25	< 3	< 2	25	
methylene chloride	<	25	< 3	< 1	25	
benzene	<	25	< 3	< 1	25	
trichloroethylene		7	1	0.2	25	quantitation estimated
а-рілепе		8	1	0.2	25	quantitation estimated
chloroform	<	25	< 3	< 1	25	
perchloroethylene		4	1	0.1	25	quantitation estimated
toluene		45	6	2	25	
b-pinene		47	6	1	25	
ethyl benzene		5	1	0.1	25	quantitation estimated
n-butanol	<	25	< 3	< 1	25	
xylene total		24	3	1	75	quantitation estimated
d-limonene	<	25	< 3	< 1	25	
propylbenzene		4	1	0.1	25	quantitation estimated
ำกอ		2	0.3	0.1	25	quantitation estimated
cellosolve		47	6	1	25	

SAMPLE NUMBER

598496

FIELD NUMBER: 0912 03B

compound		total ng/tube		ug/m3		ppb	MQL (NG)	COMMENTS
n-hexane	<	25	<	5	<	1	25	
acetone	<	25	<	5	<	2	25	
1,2-dichloroethylene (trans)	<	25	<	5	<	1	25	
nethylchloroform	<	25	<	5	<	1	25	
methyl ethyl ketone	<	25	<	5	<	2	25	
sopropanol	<	25	<	5	<	2	25	
ethanol	<	25	<	5	<	3	25	
methylene chloride	<	25	<	5	<	1	25	
oenzene	<	25	<	5	<	2	25	
trichloroethylene	<	25	<	5	<	1	25	
a-pinene		4		1		0.1	25	quantitation estimated
chloroform	<	25	<	5	<	1	25	demination commerce
perchloroethylene	<	25	<	5	<	1	25	
toluene		15		3		1	25	quantitation estimated
b-pinene		20		4		1	25	quantitation estimated
ethyl benzene		2		0.4		0.1	25	quantitation estimated
n-butanol	<	25	<	5	<	2	25	4
xylene total		10		2		0.4	75	quantitation estimated
d-limonene	<	25	<	5	<	1	25	3
propylbenzene		2		0.4		0.1	25	quantitation estimated
styrene	<	25	<	5	<	1	25	4
butyl cellosolve		20		4		1	25	quentitation estimeted

SAMPLE NUMBER

598497

FIELD NUMBER: 0912 24A

compound		total ng/tube		ug/m3		ppb	MQL (NG	)	COMMENTS
n-hexane	<	25	<	4	<	1		25	
acetone	<	25	<	4	<	2		25	
1,2-dichloroethylene (trans)	<	25	<	4	<	1		25	
methylchloroform	<	25	<	4	<	1		25	
methyl ethyl ketone	<	25	<	4	<	1		25	
isopropanol	<	25	<	4	<	Ż		25	
ethanol	<	25	<	4	<	2		25	
methylene chloride	<	25	<	4	<	1		25	
benzene	<	25	<	4	<	1		25	
trichloroethylene	<	25	<	4	<	1		25	
a-pinene		8		1		0.2		25	quantitation estimated
chloroform	<	25	<	4	<	1		25	·
perchloroethylene	<	25	<	4	<	1		25	
toluene		43		6		2		25	
b-pinene		54		8		1		25	
ethyl benzene		4		1		0.1		25	quantitation estimated
n-butanol	<	25	<	4	<	1		25	•
xylene total		16		2		0.5		75	quantitation estimated
d-limonene	<	25	<	4	<	1		25	,
propylbenzene		2		0.3		0.1		25	quantitation estimated
styrene		2		0.3		0.1		25	quantitation estimated
butyl cellosolve		44		6		1		25	deaussesses earliester

598498

FIELD NUMBER: 0912 248

compound		total ng/tube		ug/m3		ppb	MQL (NG)	COMMENTS
n-hexane	<	25	<	3	<	1	25	
acetone	<	25	<	3	<	1	25	
1,2-dichloroethylene (trans)	<	25	<	3	<	1	25	
methylchloroform	<	25	<	3	<	1	25	
methyl ethyl ketone	<	25	<	3	<	1	25	
isopropanol	<	25	<	3	<	1	25	
ethanol	<	25	<	3	<	2	25	
methylene chloride	<	25	<	3	<	1	25	
benzene	<	25	<	3	<	1	25	
trichloroethylene	<	25	<	3	<	1	25	
a-pinene		6		1		0.1	25	quantitation estimated
chloroform	<	25	<	3	<	1	25	•
perchloroethylene		2		0.2		0.04	25	quantitation estimated
toluene		41		5		1	25	•
b-pinene	<	25	<	3	<	1	25	·
ethyl benzene		4		0.5		0.1	25	quantitation estimated
n-butanol	<	25	<	3	<	1	25	·
xylene total		15		2		0.4	75	quantitation estimated
d-limonene	<	25	<	3	<	1	25	•
propylbanzene		2		0.2		0.1	25	quentitation estimated
styrene		2		0.2		0.1	25	quantitation estimated
- 'cellosolve		38		5		1	25	·

# WISCONSIN OCCUPATIONAL HEALTH LABORATORY (WOHL) SAMPLE SUBMISSION FORM

		Spc4-624-812	<ul> <li>Rush and priority requests must be prearranged.</li> </ul>	Flow 1046.  PLEASE GROUP SAMPLES BY MEDIA USED AND ANALYSIS REQUESTED. BULK AND WIPE SAMPLES SHOOT DATE BECOLLECTED IN PLASTIC BAGS.	) ANALYSIS REQUESTED &	LAN Q SPECIAL INSTRUCTIONS	Organic Screen	Thermal						<b>→</b>	Date 9-13-96	dusquissi.s
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n Northea	SDI New Karner Rd Alborn NY 12205	0	ime (Please Ci s*	P SAMPLES BY )	USE ONLY	LAB#	598493	598494	598495	598496 -	3,98497	598498	598499	E98500	ODY: Relinquish	AND FORM TO:
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WISCONSIN OCCUPATIONAL HEALTH LABO TORY (WOHL) SAMPLE SUBMISSION FORM (	Send Results To		Phone	(FAX) 311452-4248	<ul> <li>Rush and priority requests must be prearranged.</li> </ul>
IAL HEALTH LABO TORY (	Contact Person  Koenan  Koenan	Phone 518-458-4381	Sampling Date 9/12/51	WOHL COMP # 1/0 X/6	PRIORITY NORMAL
( WISCONSIN OCCUPATION	SOIN Northeast Inc	Albray NY 12205		1253.00	<pre>furnaround Time (Please Circle): RUSH kCOMMENTS★</pre>
	Bill To		P.O. #	Project	Turna ★CON

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CODE #	LAB#	FIELD#	MEDIA	Š	OFF	(MIN)	RATE	(LITERS)	$\mathcal{E}$	SPECIAL INSTRUCTIONS	NS
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		0912 CHBL	Chorcoal	Blanch	nd					- <b>}</b>	
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											qnsumes\.e

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SAMPLE NUMBER FIELD NUMBER: 0912 01A

598493

compound		total ng/tube		ug/m3		ppb	MQL (NG)	COMMENTS
n-hexane	<	25	<	4	<	1	25	
acetone	<	25	<	4	<	2	25	
1,2-dichloroethylene (trans)	<	25	<	4	<	1	25	
methylchloroform		4		1		0.1	25	quantitation estimated
methyl ethyl ketone	<	25	<	4	<	1	25	4-0/11/11/11/11/11/11/11/11/11/11/11/11/11
isopropanol	<	25	<	4	<	2	25	
ethanol	<	25	<	4	<	2	25	
methylene chloride	<	25	<	4	<	1	25	
benzene	<	25	<	4	<	1	25	
trichloroethylene		3		0.5		0.1	25	quantitation estimated
a-pinene	<	25	<	4	<	1	25	<b>3</b>
chloroform	<	25	<	4	<	1	25	
perchloroethylene		2		0.3		0.05	25	quantitation estimated
toluene		26		4		1	25	q-mintenant septimes
b-pinene	<	25	<	4	<	1	25	
ethyl benzene		4		1		0.2	25	quantitation estimated
n-butanol	<	25	<	4	<	1	25	
xylene total		18		3		1	75	quantitation astimated
d-limonene	<	25	<	4	<	1	25	,
propyibenzene	<	25	<	4	<	1	25	
styrene		1		0.2		0.04	25	quantitation estimated
butyl cellosolve		29		5		1	25	dament and miletan
1,1-dichloroethene	<	25	<	4	<	1	25	
1,2-dichloroethane	<	25	<	4	<	1	25	

SAMPLE NUMBER

598495

FIELD NUMBER: 0912 03A

compound		total ng/tube		ug/m3		ppb	MOL (N	G)	COMMENTS
n-hexan <del>e</del>	<	25	<	3	<	1		25	
acetone	<	25	<	3	<	1		25	
1,2-dichloroethylene (trans)	<	25	<	3	<	1		25	
methylchloroform		8		1		0.2		25	quantitation estimated
methyl ethyl ketone	<	25	<	3	<	1		25	4
is opropano!	<	25	<	3	<	1		25	
ethanol	<	25	<	3	<	2		25	
methylene chloride	<	25	<	3	<	1		25	
benzene	<	25	<	3	<	1		25	
trichloroethylene		7		1		0.2		25	quantitation satimated
a-pinene		8		1		0.2		25	quantitation setimated
chloroform	<	25	<	3	<	1		25	4
perchloroethylene		4		1		0.1		25	quantitation estimated
toluene		45		6		2		25	<b>,</b>
b-pinene		47		6		1		25	
ethyl benzene		5		1		0.1		25	Quantitation estimated
n-butanol	<	25	<	3	<	1		25	
xylena total		24		3		1		75	quantitation estimeted
d-limonene	<	25	<	3	<	1		25	7
propylbenzene		4		1		0.1		25	quantitation estimated
styrene		2		0.3		0.1		25	quantitation estimated
butyl cellosoive		47		6		1		25	American and the second
1,1-dichloreethane	<	25	<	4	<	1		25	
1,2-dichloroethane	<	25	<	4	<	-		25	

'LE NUMBER FIELD NUMBER : 0912 038

598496

598497

compound		total ng/tube		ug/m3		ppb	MQL	(NG)	COMMENTS	
n-hexane	<	25	<	5	<	: 1		25		
acetone	<	25	<	5	<	2		25		
1,2-dichleroethylene (trans)	<	25	<	5	<	: 1		25		
methylchleroform	<	25	<	5	<	: 1		25		
methyl ethyl ketone	<	25	<	5	<	2		25		
isopropanol	<	25	<	5	<	2		25		
ethanol	<	25	<	5	<	3		25		
methylene chloride	<	25	<	5	<	1		25		
benzene	<	25	<	5	<	2		25		
trichloreethylene	<	25	<	5	<	1		25		
a-pinene		4		1		0.1		25	quantitation estimated	
chloroform	<	25	<	5	<	1		25	•	
perchloroethylene	<	25	<	5	<	: 1		25		
toluene		15		3		1		25	quantitation estimated	
b-pinene		20		4		1		25	quantitation estimated	
ethyl benzene		2		0.4		0.1		25	quantitation estimated	
n-butanol	<	25	<	5	<	2		25	•	
xylene total		10		2		0.4		75	quantitation estimated	
d-limonene	<	25	<	5	<	: 1		25	<b>4-2-2-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-</b>	
propylbenzene		2		0.4		0.1		25	quantitation estimated	
styrene	<	25	<	5	<	: 1		25	<b>1</b>	
butyl cellosolve		20		4		1		25	quantitation estimated	
1,1-dichloroethane	<	25	<	4	<	: 1		25	4	
1,2-dichloroethane	<	25	<	4	<	: 1		25		
xylene total d-limonene propylbenzene styrene butyl cellosolve 1,1-dichloroathane	< <	10 25 2 25 25 20 25	< < <	2 5 0.4 5 4	<	0.4 1 0.1 1 1		75 25 25 25 25 25 25	quentitation estimated quentitation estimated quantitation estimated	

LE NUMBER FIELD NUMBER : 0912 24A

FIELD NUMBER; 0912 244	٠							
compound		total ng/tube		ug/m3		ppb	MQL (NG)	COMMENTS
n-hexane	<	25	<	4	<	1	25	
acatone	<	25	<	4	<	2	25	
1,2-dichloroethylene (trans)	<	25	<	4	<	1	25	
methylchloroform		6		1		0.2	25	quantitation estimated
methyl ethyl ketone	<	25	<	4	<	1	25	
is opropanol	<	25	<	4	<	2	25	
ethanol	<	25	<	4	<	2	25	
methylane chloride	<	25	<	4	<	1	25	
benzene	<	25	<	4	<	1	25	
trichloroethylene	<	25	<	4	<	1	25	
a-pinene		8		1		0.2	25	quantitation estimated
chloroform	<	25	<	4	<	1	25	
perchloroethylene	<	25	<	4	<	1	25	
toluens		43		6		2	25	
b-pinene		54		8		1	25	
ethyl benzene		4		1		0.1	26	quantitation estimated
n-butanol	<	25	<	4	<	1	25	
xylene total		16		2		0.5	75	quantitation estimated
d-limonene	<	25	<	4	<	1	25	
propylbenzene		2		0.3		0.1	25	quantitation estimated
styrene		2		0.3		0.1	25	quantitation estimated
butyl cellosolve		44		6		1	25	
1,1-dichloroethane	<	25	<	4	<	1	25	
1 2-dichloroethane	<	25	<	4	<	1	25	

SAMPLE NUMBER FIELD NUMBER: 0912 24B

styrene

butyl cellosoive

1,1-dichloroethane

1,2-dichloroethane

598498

2

38

< 25

< 25

compound total ng/tube ug/m3 MOL (NG) ppb COMMENTS n-hexane < 25 < 3 < 1 25 acetone 25 < < 3 < 1 25 1,2-dichloroethylene (trans) < 25 < 3 < 1 25 methylchloroform < 25 < 3 < 1 25 methyl ethyl ketone < 25 < 3 < 1 25 is opropanol 25 < < 3 < 1 25 ethanol 25 < < 3 < 2 25 methylene chloride < 25 < 3 < 1 25 benzene < 25 < 3 < 1 25 trichloroethylene < 25 < 3 < 1 25 a-pinene 6 1 0.1 25 quantitation estimated chloroform 25 < 3 < 1 25 perchloroethylene 2 0.2 0.04 25 quantitation estimated toluene 41 5 1 25 b-pinene 25 < < 3 < 1 25 ethyi benzene 4 0.5 0.1 25 quantitation estimated n-butanol 25 < < 3 < 1 25 xylene total 15 2 0.4 75 quantitation estimated d-limonene < 25 < 3 < 1 25 propy!benzene 2 0.2 0.1 25 quantitation estimated

0.2

5

< 4

< 4

0.1

1

< 1

< 1

25

25

25

25

quantitation estimated

TORY (WOHL) SAMPLE SUBMISSION FORM (	Send Results To	nan	160	36. Phone	38 (FAX) STP-452-432)	RMAL • Rush and priority requests must be prearranged	1x.d 9/13/96	
WISCONSIN OCCUPATIONAL HEALTH LABO TORY (WOHL) SAMPLE SUBMISSION FORM	Contact Person	wind Sit Regina Keenan	ď	Sampling Date 9/12/8/	WOHL COMP # 1686 FAX	RUSH PRIORITY (NORMAL)	Corrected - Paxed 9/13/96	
( WISCONSIN	Bill To EKM Northeast Tuc	SI Now Karner Red Sit	Allamy NY 1220°	P.O.#	Project 1254, 000	Turnaround Time (Please Circle): ★COMMENTS★		

•PI FASE GROUP SAMPLES BY MEDIA USED AND ANALYSIS REQUESTED. BULK AND WIPE SAMPLES SHOULD NOT BE COLLECTED IN PLASTIC BAGS.

i e			<del></del>	<del>,</del>					
FOR WOHL USE ONLY CUSTOMER SAMPLING TIME TOTAL FLOW VOLUME ANALYSIS REQUESTED &	SPECIAL INSTRUCTIONS	Ground Silven ha	Parbetras						
VOLUME	(LITERS)	83 .085 7.06	7,12	11.40	11.33	16.8	203 13.20	5.45	23 138 4.55
FLOW		<u>\</u> \$-80.	63 113	181	441.	127	.203	94	851
TOTAL FLOW	(MIN) RATE	83	63	63	79	(25)	(2)	1/2 S	23
TIME	OFF							)	
TIME	ON								
SAMPLING	MEDIA	Charcard							Ż
CUSTOMER	FIELD #	6713 MIAPIH	09.7 01.8% (+	6712 63.ACH	0917- 03136H	いいないま	C112 24 BC 17	OFIZ EXACH	CSISCH EXECH
FOR WOHL USE ONLY	LAB#								
FOR WOHL	CODE#								

a:\sampsub

Date_

CHAIN OF CUSTODY: Relinquished KEYTHA KELINDON Date 1/2/26 Received

Wisconsin Occupational Health Lab 979 Jonathon Drive Madison, WI 53713

MAIL SAMPLES AND FORM TO:

608 263-6550 800 446-0403 608-263-6551

Phone

FAX

# LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

Ulster Business Complex Kingston, New York

November 1997

### Prepared for:

### ALAN GINSBERG

AG Properties of Kingston, LLC 25 Martine Avenue White Plains, New York 10606

Frepared by:

ERM-NORTHEAST, INC.

421 New Karner Road Albany, New York 12205



# LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

Ulster Business Complex Kingston, New York

November 1997

Prepared for:

ALAN GINSBERG AG Properties of Kingston, LLC 25 Martine Avenue White Plains, New York 10606

Prepared by:

ERM-NORTHEAST, INC. 421 New Karner Road Albany, New York 12205

421 New Karner Road Albany, NY 12205 (518) 452-4291 (518) 452-4295 (Fax)

14 November 1997

Mr. Alan Ginsberg AG Properties of Kingston, LLC 25 Martine Avenue White Plains, New York 10606

RE: Report on Limited Phase II Activities
Former IBM Kingston, New York Facility
(Ulster Business Complex)

Dear Mr. Ginsberg:

Environmental Resources Management (ERM) conducted limited Phase II activities at the former IBM Kingston, New York facility, hereafter referred to as the Ulster Business Complex (UBC), on 7 and 8 October, 1997. The limited Phase II activities were performed in accordance with ERM's proposal dated 11 September 1997.

The results of ERM's efforts are summarized in tabular format (Attachment A) following the same task outline as listed in the original proposal.

### Task 1 - Inspection/Review/Confirmation Activities

ERM-Northeast Project No. 1259.006

As presented in the attached Table 1 (Attachment A), Task 1 involved inspection of several areas of the UBC where issues of potential environmental concern had been identified during ERM's 1996 Phase I assessment. The intent of this portion of Task 1 was to confirm that IBM had addressed these issues.

As an additional part of Task 1, ERM was to review IBM's documentation regarding the issues presented in the attached Table 2 (Attachment A). Unfortunately, many of the records requested for review by ERM were either unavailable or no longer exist.

### Task 2 - Regulatory Assessment Activities

Task 2 required ERM to perform an applicability review of the NYSDEC petroleum bulk storage regulations and chemical bulk storage regulations



14 November 1997 Mr. Alan Ginsberg ERM-Northeast Project No. 1259.006 Page 2

which are in effect at the time of ownership transfer. Assuming that the date is 1 December 1997, the following will be the obligations of the new owner/operator of existing petroleum and chemical storage tanks (other than those tanks which have been properly closed). Note that no closure documentation exists for the two tanks which are believed to exist beneath buildings B035 and B036. However, as IBM has identified these two tanks as being present and having been closed, it is assumed that IBM will retain responsibility for these two tanks.



# PETROLEUM STORAGE TANKS (ABOVE OR BELOW GROUND) 6NYCRR Part 612, 613 and 614.

- 1. Tanks must all be registered within 30 days prior to ownership transfer;
- If the facility has over 400,000 gallons in aboveground storage, the facility will need to renew its Major Oil Storage Facility (MOSF) license with NYSDEC. Requirements of that license would take precedence over any of the following;
- 3. The registration certificate must be displayed on the premises;
- 4. Registration fees must be paid;
- 5. Inventory records must be maintained;
- Tanks must be inspected daily, monthly, annually or at other intervals, depending on the tank's location, construction material and age;
- 7. Tanks and fill ports must be properly labeled;
- 8. Registration renewal is every 5 years;
- The entire facility must have an updated Spill Prevention Control and Countermeasure (SPCC) plan. Requirements of the plan will include annual spill response training of personnel, inspections and recordkeeping;
- 10. Required records must be kept from 3 to 10 years, depending on the record.

14 November 1997 Mr. Alan Ginsberg ERM-Northeast Project No. 1259.006 Page 3

# CHEMICAL STORAGE TANKS (ABOVE OR BELOW GROUND) 6NYCRR Part 595, 596, 596, 598 and 599.

1. The facility is not known to have any regulated tanks. The size threshold is 185 gallons or greater for applicability.

### Task 3 - Sampling and Analysis of Hydraulic Equipment Reservoirs

This task required ERM to sample 66 known pieces of hydraulic equipment at the UBC. The equipment identification, sampling results and comments are provided in Table 4, in Attachment A. A total of 21 samples could safely be taken from a total of 66 identified pieces of equipment. All samples had nondetectable levels of PCBs. Equipment which could not be sampled, and the areas around the equipment (floors, walls, sumps, etc.), were visually inspected for signs of leakage. A copy of the analytical report is included as Attachment B to this report. The locations of the remaining pieces of hydraulic equipment at the UBC are presented on Figure 1 in Attachment C.

Since none of the sampled equipment contained PCBs, draining and refilling this equipment due to PCB content is not required. Those pieces of equipment which were noted to be leaking should be repaired as part of site maintenance activities.

### Task 4 - Reporting

This task required ERM to provide a summary report of the Phase II effort and to make recommendations as appropriate. This letter report serves to address the Task 4 requirements.

### **UNRESOLVED ISSUES**

The following issue remains unresolved after the completion of the limited Phase II activities:

• The existence of the potential disposal area southwest of the Salt Barn remains an issue. According to IBM, no visible evidence was apparent in 1993 aerial photography. ERM's re-review of the subject photograph, and statements made by Mr. Dick Coller, confirm that disposal of C&D materials may have occurred in this area. Mr. Coller is an employee of Grubb and Ellis, the firm presently responsible for the site's property management. Mr. Coller formerly worked for IBM at the site. The area is currently heavily overgrown and was not easily accessible in 1997.



14 November 1997 Mr. Alan Ginsberg ERM-Northeast Project No. 1259.006 Page 4

### RECOMMENDATIONS

As a result of ERM's limited Phase II activities at the UBC, we have developed the following recommendations for the new owner of the facility:

1. The UBC should develop a storage tank management plan to address all the regulatory requirements associated with each tank still in operation or to be closed in the near term. ERM identified 13 aboveground storage tanks and eight (8) underground storage tanks that are or are reported to remain at the UBC site. Such a plan will establish the operational and recordkeeping requirements specific to each tank. Such a plan would include the requirements of an SPCC plan. Note that an SPCC plan is a federal requirement promulgated by 40 CFR Part 112.



2. The floor drains in Bldg. B029 should be plugged. The water in the USTs associated with B029 should be analyzed. Note that these tanks were formally closed in accordance with NYSDEC regulations and requirements and the closure was accepted by NYSDEC. This is the same recommendation as was made in ERM's original report.

ERM appreciates the opportunity to assist you with your on-going environmental needs at the UBC. Should you have any questions or comments, or require additional information, please do not hesitate to contact either of the undersigned.

Sincerely,

Richard A. Schulman

Project Manager

Douglas A. Wolf Project Manager

**Attachments** 

cc: Mr. Michael S. Ahern, Divney Tung Schwalbe

ATTACHMENT A
TABLES

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TABLE 1 INSPECTION/CONFIRMATION AREAS FORMER IBM KINGSTON FACILITY

Reference Number	Topic/Area to be Inspected	Comments	
1	Building B043 former PCB storage area.	The area was found to be in use as a packaging/materials handling area. No PCB labeled drums or other containers were observed. The area had a painted floor and was observed to be stain free and orderly.	
		ERM reviewed Annual PCB Document Logs for the storage, handling and disposal of PCB articles and equipment for the years 1982 through 1993. IBM disposed of a significant quantity of PCB materials, primarily capacitors and printers. These materials were stored in Building B029 prior to disposal and disposed by licensed disposal companies. No outstanding issues regarding IBM's PCB management remain.	
2	Uncapped industrial wastewater drains.	The drains in question were located in Building B004 Wet Lab. All drains were observed to be capped or plugged. Standing water was evident in the floor drains and trenches. The source(s) of this water were not readily apparent.	
3	Staining and corrosion in Building B004.	The equipment and ductwork associated with the staining and corrosion has been removed.	
4	Building B005N freight elevators.	The jack and piston for the Building B005N freight elevator No. 1 had recently been repaired, however the elevator was not operational at the time of ERM's site visit and the pit could not be inspected.  The subsurface bore hole from which the Building B005N freight elevator No. 2 piston and related mechanical equipment protrudes was found to contain an unknown volume of oil. Samples of the oil were not taken by ERM, however	
		representatives of Groundwater Sciences Corporation (GSC) were contacted by IBM and arrived at the site to collect samples. According to the GSC personnel, the oil layer within the borehole was greater than three feet thick.	

# TABLE 1 (continued) INSPECTION/CONFIRMATION AREAS FORMER IBM KINGSTON FACILITY

Reference Number	Topic/Area to be Inspected	Comments
5	Lead-acid battery storage area in Building B034.	The lead acid batteries and battery racks have been removed.

TABLE 2
RECORDS REVIEW ACTIVITIES
FORMER IBM KINGSTON FACILITY

Reference Number	Review Area	Comments
6	Maintenance and inspection records for all facility hydraulic equipment, including reservoir refilling schedules, indications of leaks or loss of fluids, and re-use of fluid from decommissioned equipment or existing equipment.	No records associated with the hydraulic equipment were produced for review. However, several pieces of equipment did have physical markings indicating that oil may have been changed out.
7	Documentation concerning the closure, and removal of equipment of ten former truck levelers.	No documentation associated with ten former hydraulic truck levelers was produced for review. The areas where these levelers formerly existed, reportedly in the vicinity of Buildings B001 and B003, are now level concrete floors enclosed by walls and overhead doors. Original installations were located 15 to 18 below grade, uncovered and designed to collect precipitation, according to Dick Coller of Grubb and Ellis.
8	Current status of all remaining aboveground and underground petroleum and chemical bulk storage tanks as well as closure reports for any of these tanks that are reported by IBM to have been closed in accordance with NYSDEC requirements.	ERM identified 21 potential existing aboveground and underground tanks at the UBC. The status of the 21 identified potential existing tanks and three tanks which either were removed or were never actually present at the cited locations, is presented on Table 3.

# TABLE 2 (continued) RECORDS REVIEW ACTIVITIES FORMER IBM KINGSTON FACILITY

Reference Number	Review Area	Comments
9	The "underground" spill collection tanks associated with Bldg. No. B029.	The tanks were each re-examined and found to be in the same condition as originally identified. Water was evident in three of the tanks. The source of this water is unknown. It may be runin from open drains within B029 or it may be condensate. In addition, these tanks may be incorrectly classified as "underground" tanks. ERM's inspection indicates that the tanks are contained within a vault that is partially filled with pea gravel and has a monitoring well. It is therefore likely that these tanks are actually "aboveground" rather than underground tanks as defined by 6NYCRR Part 612, 613 and 614. Note that these tanks were formally closed in accordance with NYSDEC regulations and requirements and the closure was accepted by NYSDEC.
10	Information concerning the two areas of potential onsite disposal.	No new information was generated by IBM to address the 1983 aerial photo indicating the presence of a potential disposal area southwest of the Salt Barn. The photograph was reviewed again and this area was confirmed to be an area of potential on-site disposal. Mr. Dick Coller of Grubb and Ellis indicated, during the Phase II site visit, that this area had been used by IBM for disposal of construction and demolition (C&D) debris.  IBM supplied information concerning the potential disposal area located near the Industrial Waste Treatment Plant. This information indicates that this area was not used for on-site disposal of wastes and therefore does not appear to be a concern.

TABLE 3
STATUS OF SUSPECTED AND/OR EXISTING TANKS
FORMER IBM KINGSTON FACILITY

ERM Tank ID Number ¹	GSC Tank ID Number ²	Location	Description and Use of Current Tank	Status
2,46	AI	Adjacent to, and east of, B034.	550 gallon diesel AST for emergency generator.	Present, active?
21, 43, 44, 45	AA	Southwest of B029.	25 gallon diesel emergency generator day tank (AST).	Present, active?
32, 49	AH	B032.	500 gallon fuel oil AST	Present, active?
48	AS	South of B036.	550 gallon diesel AST	Present, inactive.
66, 67	AT	B047, east of B032.	500 gallon diesel AST for large AST tank heater.	Present, active?
5	Z	East of B029.	1,500 gallon chemical spill containment	Present, inactive.
16	Ü	East of B029.	500 gallon chemical spill containment	Present, inactive.
17	V	East of B029.	500 gallon chemical spill containment	Present, inactive.
18	W	East of B029.	500 gallon chemical spill containment	Present, inactive.
19	X	East of B029.	500 gallon chemical spill containment	Present, inactive.
20	Y	East of B029.	500 gallon chemical spill containment	Present, inactive.
53	D	Northwest of B003.	Possible UST location investigated by Conestoga-Rovers and Associates (CRA) in 7/96 investigation. No tank found.	Reported as not present
37, 54	Е	40 feet east- southeast of B003.	Possible UST location investigated by CRA in 7/96 investigation. No tank found.	Reported as not present

# TABLE 3 (continued) STATUS OF SUSPECTED AND/OR EXISTING TANKS FORMER IBM KINGSTON FACILITY

ERM Tank ID Number ¹	GSC Tank ID Number ²	Location	Description and Use of Current Tank	Status
59	AJ	Adjacent to, and east of, B034.	Possible UST location investigated by CRA in 7/96 investigation. Tank found and removed.	Closed, removed.
60	AK	460 gallon emerg. overflow tank beneath B035 expansion.	Not used. Unknown if pipes to/from tank have been capped. No closure documentation available.	Present, closed?
61	AP	500 gallon fuel oil UST beneath B036 expansion.	Not used. Unknown if pipes to/from tank have been capped. No closure documentation available.	Present, closed?
22	AC	East of B031.	500,000 gallon No. 2 fuel oil AST, reportedly closed in 1994. No closure documentation available.	Present, closed?
23	AB	East of B031.	500,000 gallon No. 6 fuel oil AST.	Present, active?
24	AD	East of B031.	150,000 gallon No. 6 fuel oil AST.	Present, active?
47	N/A	Inside B031	160 gallon corrosion inhibitor with alkalinity adjustment conditioner AST	Present, active?
68 ³	N/A	B036 Basement	300 gallon sulfuric acid AST	Present, active?
693	N/A	B036 Basement	300 gallon sodium hydroxide AST	Present, active?
703	N/A	Inside B031	270 gallon chemical softener AST	Present, active?
713	N/A	Inside B031	270 gallon chemical softener AST	Present, active?

# TABLE 3 (continued) STATUS OF SUSPECTED AND/OR EXISTING TANKS FORMER IBM KINGSTON FACILITY

### **Footnotes**

- 1 As referenced in ERM's Phase I Environmental Site Assessment Report, November 1996.
- 2 As referenced in GSC's Draft Phase I Environmental Site Assessment Report, March
- 3 These tanks were not observed during the limited Phase II site visit. Site personnel reported that these tanks had been replaced by tanks with capacities of less than 185 gallons and are therefore not regulated units.

TABLE 4
REMAINING HYDRAULIC EQUIPMENT
FORMER IBM KINGSTON FACILITY

Reference Number	Inspection Area	PCB Analytical Results	Comments ⁴
11	Bldg. No. B022 passenger elevator No. 022-1	Non-detect	Sample 1.
12	Bldg. No. B005 freight elevator No. 005N-2.	Non-detect	Sample 2. Elevator piston bore hole was inspected and found to contain oil. Pit is likely 20 to 30 feet deep, extending below the water table. Volume of oil present not established. Installation details/drawings not available.
13	Bldg. No. B005 passenger elevator No. 005N-2.	Non-detect	Sample 3.
14	Bldg. No. B005 passenger elevator No. 005N-1.	Non-detect	Sample 4.
15	Bldg. No. B052 passenger elevator No. 052-1.	Non-detect	Sample 5. Elevator piston bore hole packed with concrete. Staining evident on floor of shaft.
16	Bldg. No. B052 loading dock lift No. ES-1.	Non-detect	Sample 6
17	Bldg. No. B052 RR dock door No. ED01-077.	Non-detect	Sample 7
18	Bldg. No. B052 RR dock door No. ED01-076.	Non-detect	Sample 8
19	Bldg. No. B052 RR dock door No. ED01-075.	Non-detect	Sample 9
20	Bldg. No. B052 RR dock door No. ED01-074.	Non-detect	Sample 10

Reference Number	Inspection Area	PCB Analytical Results	Comments ⁴
21	Bldg. No. B052 RR dock door No. ED01-073.	Non-detect	Sample 11
22	Bldg. No. B031 outdoor dock lift.	Non-detect	Sample 12
23	Bldg. No. B051 interior freight lift.	Non-detect	Sample 13
24	Bldg. No. B052; 11 loading docks.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). No staining was evident.
25	Bldg. No. B029 loading dock lift No. ED01-007.	Non-detect	Sample 14
26	Bldg. No. B034 outdoor loading dock.	Non-detect	Sample 15
27	Bldg. No. B025 1st floor freight elevator No. 001.	Non-detect	Sample 16. Oil staining was evident on pit floor. Concrete was poured around piston bore hole.
28	Bldg. No. B025 passenger elevator No. 001.	Non-detect	Sample 17.
29	Bldg. No. B025 passenger elevator No. 002.	Non-detect	Sample 18.
30	Bldg. No. B201 passenger elevator No. 201-1.	Non-detect	Sample 19.
31	Bldg. No. B202 1st floor freight elevator No. 1.	Non-detect	Sample 20. Piston bore hole sealed at floor of shaft.

Reference Number	Inspection Area	PCB Analytical Results	Comments ⁴
32	Bldg. No. B202 1st floor passenger elevator No. 2.	Not sampled	Sample not taken. Identified as a new SWMU by IBM.
33	Bldg. No. B202 1st floor passenger elevator No. 3.	Non-detect	Sample 21. Piston bore hole sealed at floor of shaft.
34	Bldg. No. B203 loading dock lift Nos. ED01-100, 099 and 098.	Not sampled	Samples not taken due to safety. A total of 2 were present. One was found to be stain free, the other was leaking slightly. A third lift was previously removed and filled with concrete.
35	Bldg. No. B043; 3 loading dock levelers.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). IBM correspondence dated 7/18/97 identified the 3 dock levelers as being manual. Actual installations are hydraulic. Units were not leaking.
36	Bldg. No. B003; 2 truck levelers.	Not sampled	Samples not taken due to unsafe conditions (confined space). Equipment located below grade. Sumps were visible. Discharge paths unknown. Short dock leveler had evidence of leakage.
37	Bldg. No. B001; 6 loading docks.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). Two of the docks were not functional. The remaining 4 appeared fairly new and were not leaking.

Reference Number	Inspection Area	PCB Analytical Results	Comments ⁴
38	Bldg. No. B005N loading dock Nos. ED01-046, 047, 048 and 049.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). No. 046 had a leaking hydraulic cylinder. Staining was evident. No. 047 was in good condition. Nos. 048 and 049 were inoperable.
39	Bldg. No. B042; 3 loading docks.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). Two of the lifts were in good condition. A third was inaccessible.
40	Bldg. No. B033; 2 loading docks.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). IBM correspondence dated 7/18/97 identified a total of 4 hydraulic units. Only 2 were observed and were not operational.
41	Bldg. No. B051 loading docks Nos. ED01-073 and 074.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout).  Both units appeared fairly new and had no evidence of leakage.
42	Bldg. No. B032 scissors lift.	Not sampled	Sample not taken due to unsafe condition (equipment lockout). Unit had no evidence of leakage.
43	Bldg. No. B029 loading dock No. ED01-057.	Not sampled	Sample not taken due to unsafe conditions (equipment lockout). IBM correspondence dated 7/18/97 identified a total of 2 hydraulic units. Only one was observed and was not observed to be leaking.
44	Bldg. No. B035 loading dock Nos. ED01-110 and 111.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout).  No evidence of leakage observed.

Reference Number	Inspection Area	PCB Analytical Results	Comments ⁴
45	Bldg. No. B025 loading dock Nos. ED01-056, 055 and 054.	Not sampled	Samples not taken due to unsafe conditions (equipment lockout). No evidence of leakage observed.

### **Footnotes**

4 - If there are no comments listed in this column for a specific piece of equipment, then no issues of potential environmental concern (leaks, stains, etc.) associated with that equipment were noted during the site inspection.

### ATTACHMENT B ANALYTICAL RESULTS

			a a



### SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

Laboratory Analysis Report
Prepared for: ERM-ENVIROCLEAN-NORTHEAST
Project Number: 9917827
Task Number: 971009C
16 OCT 1997

### IMPORTANT - PLEASE NOTE

- 1. All results are calculated on a dry weight basis unless otherwise specified.
- 2. PQL = Practical Quantitation Limit.
- 3. A result with a "D" means that the result was "Detected" below the Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
- 4. ND = Not Detected at or above the PQL.
- 5. NTP = Non-target peaks (1-5 peaks). MNTP = Many non-target peaks (5+ peaks).
- 6. pH results not performed in the field should be considered estimated since the holding time is 15 minutes from the sampling time.
- If the samples are collected independently of our laboratory, Scilab is not responsible for the possible contamination during the sampling procedure.
- 8. Methylene chloride and acetone are common laboratory artifacts for volatile organic analysis. Bis-(2-ethyl-hexyl) phthalate and di-n-butylphthalate are common laboratory artifacts for GC/MS semivolatile analysis. Other compounds may also appear as laboratory artifacts for the organic analyses. The above compounds will be flagged as suspected laboratory artifacts if the detected value is less than five (5) times of the PQL in the sample. Acetone will be flagged as a suspected laboratory artifact only up to two and a half (2.5) times of the PQL.
- 9. If air samples are collected independently of our laboratory, Scilab is not responsible for inadequate sample volume for air analysis.

AUTHORIZED FOR RELEASE:

DATE: 10/17/97

CERTIFICATIONS:

NYS E.L.A.P. ID NO: 10358

MA: NY052

CT: PH-0551

NJ: 73581



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 10:00 AM

Sampled By : WOLF

Sample Id: 8022-1 ELEV.RES Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100

Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 01 Date Received: 10/08/97

Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	nodology Used	Results	PQL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	D	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 10:15 AM

Sampled By: WOLF

Sample Id: B005N FREIGHT ELEV Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 02 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Metho	Results	PQL	<u>Unit</u>	Analyst Reference	
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	NO	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST
421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 10:25 AM

Sampled By : WOLF

Sample Id: B005N ELEV.2 RES. Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 03 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Methodology Used			PQL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 10:30 AM

Sampled By : WOLF

Sample Id: B005N ELEV.1 RES. Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100

Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 04

Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	odology Used	Results	PQL	<u>Unit</u>	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 11:50 AM

Sampled By: WOLF

Sample Id: B052 ELEV. RES. Location : UBC KINGSTON, NY PAGE 5

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100

Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 05

Date Received: 10/08/97

Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	odology Used	Results	PQL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2,5	MCG/G	GC8F:031 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	HCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 13:55 PM

Sampled By : WOLF

Sample 1d: B052 ES-1 LOADING Location : UBC KINGSTON, NY

SCILAB ALBANY, INC.

P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 06
Date Received: 10/08/97
Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	odology Used	<u>Results</u>	PQL	<u>Unit</u>	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97 -
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 14:20 PM

Sampled By : WOLF

Sample Id: B052 ED01-077 RR D Location : UBC KINGSTON, NY

Parameters	and	Standard	Methodology	Used

EXTRACTION	FOR	PCBS	IN	OIL	SW-846	METHOD	8080	
PCB1016					SW-846	METHOD	8080	
PCB1221					SW-846	METHOD	8080	
PCB1232					SW-846	METHOD	8080	
PCB1242					SW-846	METHOD	8080	
PCB1248					SW-846	METHOD	8080	
PCB1254					SW-846	METHOD	8080	
PCB1260					SW-846	METHOD	8080	

PAGE 7 SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

971009C 07 Sample No: Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Results	PQL	<u>Unit</u>	Analyst Reference
COMPLETED			ACK 10/10/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-HORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Sampled By : WOLF

Sample Id: 8052 ED01-076 RR D Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 08
Date Received: 10/08/97
Collection Method: GRAB

Matrix: OIL

Parameters and Standard Heth	odology Used	Results	PQL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 14:45 PM

Sampled By: WOLF

Sample Id: B052 ED01-075 RR D Location: UBC KINGSTON, NY

Parameters and Standard Methodology Used

EXTRACTION	FOR	PCBS	IN	OIL	SW-846	METHOD	8080
PCB1016					SW-846	METHOD	8080
PCB1221					SW-846	METHOD	8080
PCB1232					SW-846	METHOD	8080
PCB1242					SW-846	METHOD	8080
PCB1248					SW-846	METHOD	8080
PC81254					SW-846	METHOD	8080
PCB1260					SW-846	METHOD	8080

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 09
Date Received: 10/08/97
Collection Method: GRAB

Matrix: OIL

Results	PQL	Unit	Analyst Reference
COMPLETED			ACK 10/10/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 14:55 PM

Sampled By : WOLF

Sample Id: B052 ED01-074 RR D Location: UBC KINGSTON, NY

Parameters and Standard Methodology Used

EXTRACTION FOR PCBS IN OIL SW-846 METHOD 8080 SW-846 METHOD 8080 PCB1016 SW-846 METHOD 8080 PCB1221 PCB1232 SW-846 METHOD 8080 SW-846 METHOD 8080 PCB1242 SW-846 METHOD 8080 PCB1248 SW-846 METHOD 8080 PCB1254 SW-846 METHOD 8080 PCB1260

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 10 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Results	PQL	Unit	Analyst Reference
COMPLETED			ACK 10/10/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97
ND	2.5	MCG/G	GC8F:031 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/07/97 Time: 15:10 PM

Sampled By : WOLF

Sample Id: 8052 ED01-073 RR D Location : UBC KINGSTON, NY

Parameters

EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080
PCB1016	SW-846 METHOD 8080
PCB1221	SW-846 METHOD 8080
PCB1232	SW-846 METHOD 8080
PC81242	SW-846 METHOD 8080
PCB1248	SW-846 METHOD 8080
PCB1254	SW-846 METHOD 8080
PCB1260	SW-846 METHOD 8080

PAGE 11 SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 11 Date Received: 10/08/97 Collection Method: GRAB

Matrix: Oll

3	and	Standard M	ethodology l	)sed	Results	PQL	<u>Unit</u>	Analyst Reference	<u>e</u> .
ų	FOR	PCBS IN OI	L SW-846	METHOD 8080	COMPLETED			ACK 10/10/97	
			sw-846	0808 OOHTAM	ND	2.5	MCG/G	GC8F:031 10/11/97	
			SW-846	METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97	
			SW-846	METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97	
			S₩-846	0808 00HT3M	ND	2.5	MCG/G	GC8F:031 10/11/97	
			SW-846	0808 GOHTEM	ND	2.5	MCG/G	GC8F:031 10/11/97	•
			SW-846	METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97	
			S₩-846	METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97	



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 10:20 AM

Sampled By : WOLF

Sample Id: B031 EXTERIOR LIFT Location: UBC KINGSTON, NY

## SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 12 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

odology Used	Results	PQL	<u>Unit</u>	Analyst Reference
SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
SW-846 METHOD 8080	DM	2.5	MCG/G	GC8F:031 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:031 10/11/97
	SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080	SW-846 METHOD 8080 COMPLETED SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND	SW-846 METHOD 8080       COMPLETED         SW-846 METHOD 8080       ND       2.5         SW-846 METHOD 8080       ND       2.5	SW-846 METHOD 8080       COMPLETED         SW-846 METHOD 8080       ND       2.5       MCG/G         SW-846 METHOD 8080       ND       2.5       MCG/G



ERM-ENVIROCLEAN-NORTHEAST
421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 10:45 AM

Sampled By : WOLF

Sample Id: BO51 FREIGHT ELEV. Location: UBC KINGSTON, NY

Parameters and Standard Methodology Used

EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080
PCB1016	SW-846 METHOD 8080
PCB1221	SW-846 METHOD 8080
PC81232	SW-846 METHOD 8080
PCB1242	SW-846 METHOD 8080
PCB1248	SW-846 METHOD 8080
PCB1254	SW-846 METHOD 8080
PCB1260	SW-846 METHOD 8080

SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 13
Date Received: 10/08/97
Collection Method: GRAB

Matrix: OIL

<u>Results</u>	PQL	Unit	Analyst Reference
COMPLETED			ACK 10/10/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 11:00 AM

Sampled By : WOLF

Sample Id: 8029 ED01-007 LIFT Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No:

971009C 14

Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	odology Used	Results	POL	<u>Unit</u>	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97



ERM-ENVIROCLEAN-NORTHEAST
421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 11:20 AM

Sampled By : WOLF

Sample Id: 8034 EXTERIOR LIFT Location: UBC KINGSTON, NY

Parameters and Standard Methodology Used

EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080
PCB1016	SW-846 METHOD 8080
PCB1221	SW-846 METHOD 8080
PCB1232	SW-846 METHOD 8080
PCB1242	SW-846 METHOD 8080
PCB1248	SW-846 METHOD 8080
PC81254	SW-846 METHOD 8080
DCR1260	SU-846 METHOD 8080

PAGE 15

### SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No:

971009C 15

Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Results	PQL	Unit	Analyst Reference
COMPLETED			ACK 10/10/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97
ND	2.5	MCG/G	GC8F:032 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

PCB1260

NY 12205

SW-846 METHOD 8080

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 11:40 AM

Sampled By : WOLF

Sample Id: B025 FREIGHT ELEV. Location : UBC KINGSTON, NY

Fax: (518) 786-7700 PROJECT #: 9917827

Task #: 971009C

Sample No:

971009C 16

PAGE 16

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100

Date Received: 10/08/97 Collection Method: GRAB

SCILAB ALBANY, INC.

Matrix: OIL

Parameters	and Standard Meth	odology Used	Results	POL	Unit	Analyst Reference
FXTRACTION	FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1221		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1232		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1242		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1248		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1254		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1254		SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 11:50 AM

Sampled By : WOLF

Sample Id: B025 ELEV.1 RES. Location: UBC KINGSTON, NY SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 17 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standar	d Methodology Used	Results	PQL	<u>Unit</u>	Analyst Reference
EXTRACTION FOR PCBS IN	OIL SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1248	SW-846 METHOD 8080	D	2.5	MCG/G	GC8F:032 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 11:55 AM

Sampled By : WOLF

Sample Id: 8025 ELEV.2 RES. Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

IS Century Hill Drive P.O. Box 787 Latham, NY 12110 • Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 18
Date Received: 10/08/97
Collection Method: GRAB

Matrix: OIL

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97



ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 14:15 PM

Sampled By : WOLF

Sample Id: B201 FREIGHT ELEV. Location: UBC KINGSTON, NY SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 19 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Methodology Used		PQL	Unit	Analyst Reference
SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
SW-846 METHOD 8080	ND	2.5	HCG/G	GC8F:032 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
	SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080 SW-846 METHOD 8080	SW-846 METHOD 8080 COMPLETED SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND SW-846 METHOD 8080 ND	SW-846 METHOD 8080 COMPLETED  SW-846 METHOD 8080 ND 2.5  SW-846 METHOD 8080 ND 2.5  SW-846 METHOD 8080 ND 2.5  SW-846 METHOD 8080 ND 2.5  SW-846 METHOD 8080 ND 2.5  SW-846 METHOD 8080 ND 2.5  SW-846 METHOD 8080 ND 2.5	SW-846 METHOD 8080 COMPLETED SW-846 METHOD 8080 ND 2.5 MCG/G SW-846 METHOD 8080 ND 2.5 MCG/G SW-846 METHOD 8080 ND 2.5 MCG/G SW-846 METHOD 8080 ND 2.5 MCG/G SW-846 METHOD 8080 ND 2.5 MCG/G SW-846 METHOD 8080 ND 2.5 MCG/G SW-846 METHOD 8080 ND 2.5 MCG/G



FULL SERVICE ENVIRONMENTAL LABORATORIES

ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006

Date Sampled: 10/08/97 Time: 14:35 PM

Sampled By : WOLF

Sample Id: B202-1 FREIGHT ELV Location: UBC KINGSTON, NY

SCILAB ALBANY, INC.

P.O. Box 787 Latham, NY 12110 Tel: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 20 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	odology Used	Results	PQL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PC81232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97

REMARKS:



FULL SERVICE ENVIRONMENTAL LABORATORIES

ERM-ENVIROCLEAN-NORTHEAST 421 NEW KARNER ROAD

ALBANY

NY 12205

Attention: MR. DOUG WOLF

Purchase Order Number: 1259-006 Date Sampled: 10/08/97 Time: 14:45 PM

Sampled By : WOLF

Sample Id: B202-3 ELEV.3 RES. Location: UBC KINGSTON, NY SCILAB ALBANY, INC.

15 Century Hill Drive P.O. Box 787 Latham, NY 12110 Tei: (518) 786-8100 Fax: (518) 786-7700

PROJECT #: 9917827

Task #: 971009C

Sample No: 971009C 21 Date Received: 10/08/97 Collection Method: GRAB

Matrix: OIL

Parameters and Standard Meth	odology Used	Results	POL	Unit	Analyst Reference
EXTRACTION FOR PCBS IN OIL	SW-846 METHOD 8080	COMPLETED			ACK 10/10/97
PCB1016	SW-846 METHOD 8080	DK	2.5	MCG/G	GC8F:032 10/11/97
PCB1221	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1232	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1242	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1248	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1254	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97
PCB1260	SW-846 METHOD 8080	ND	2.5	MCG/G	GC8F:032 10/11/97

REMARKS:

CHAIN OF ODY RECORD LABORATORY SERVICES

SCILA( 15 Century .... Drive

Latham, NY 12110 FAX 518-786-7139

P.O. Box 787 518-786-7100

TASK #

z > 2. Custody seals intact?3. Preserved properly? 5. C.O.C. received with Sample Condition Analysis Required 4. Ambient or chilled? 1. Samples intact? samples? Date: DN6/45 A. WOR Preservative 9 N (not preserved) from list below) (list by # 0 7. H₂SO₄ 8. F (Filtered) 6. Ascorbic Preservatives 10. Other Method of Shipment: tainers Sog to # (please print) Turnaround Time Requested 4. NaS₂O₃ 5. Zn Acet **5 K 4 B** 3. NaOH 2. HNO Sample Type 0020 Sampler's Name_ Matrix Contact Date/Time A = a.m. P = p.m. Time (35,5) 02/1 143T 220 appliatory by: Sampled Date Received by: (signature) Received by: (signature) Received by Premois (Secrain Det Servair ž RR DOCK Sample ID/Description PP EDO/OFF Karlasz ED-1035 8022-1 KODEN quished by: (signature) Dispatched by: (signature) 2052 NOTES/COMMENTS: Project Location Purchase Order Client Contact <u>8</u> ⊇ Client

HIND DELVEY

CHAIN OF CUSTODY RECORD LABORATORY SERVICES

SCILAB
15 Century Hill Drive
P.O. Box 787
Latham, NY 12110
518-786-7139
FAX 518-786-7139

14SK # 471/03/0

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Relinquished by: (signature)	signature)	-	3. NaOH	Ξ. Ξ.	8. F (Filtered)	8. F (Filtered)	3. Preserved property? Y N	
Dispatched by: (signature)	sponetory by:		5. Zn Acet	Zn Acet	10. Other	er constant	5. C.O.C. received with Y N samples?	
NOTES/COMMENTS:	A B		Metho	d of S	Method of Shipment:		Date:	ı
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**JDY RECORD** CHAIN OF C DDY RECOF

15 Century Half Drive P.O. Box 787

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SCILAB

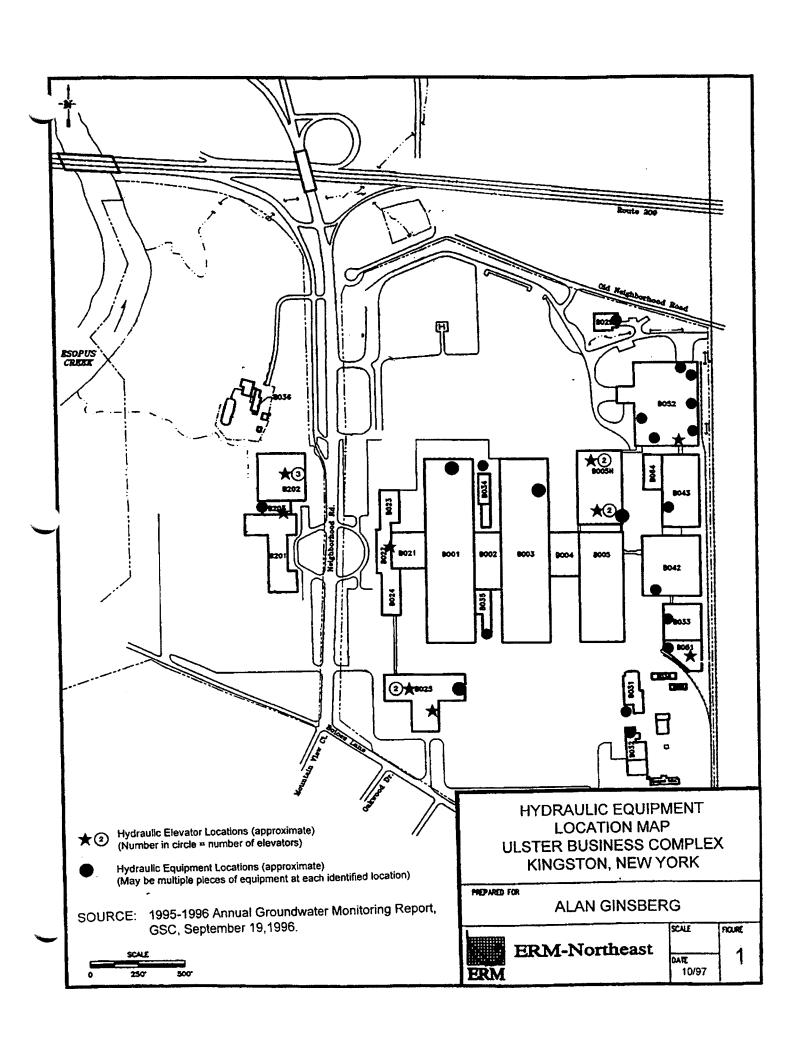
FAX 518-786-7139 Latham, NY 12110

518-786-7100

z > 2. Custody seals intact? 3. Preserved properly? Sample Condition 5. C.O.C. received with Analysis Required 4. Ambient or chilled? 1. Samples intact? samples? 9. N (not preserved) 10. Other Preservative from list below) (list by # 7. H₂SO₄ 8. F (Filtered) 6. Ascorbic Preservatives Method of Shipment: (please print) tainers Con-# of Turnaround Time Requested 2. HNO₃ 3. NaOH 4. NaS₂O₃ 5. Zn Acet **5 E 4 B** Sample Type OOZD Sampler's Name_ Matrix Contact Date/Time P = p.m. A = a.m. 1445 Time Sampled Date Received by: (signature) Received by: (signature) Received by: (signatore) ed to Sample ID/Description (signature) Dispatched by: (signature) 8202 NOTES/COMMENTS: Project Location Purchase Order Sampled by Client Contact 9 ₽ Client بتغي

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ATTACHMENT C FIGURES



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Besicorp/Empire Development, LLC 1151 Flatbush Road Kingston, NY 12401

### **Empire State Newsprint Project Ulster Township, NY**

# Preliminary Summary of the TechCity Site for Environmental Considerations

Draft # October 29 4 1999

Prepared By: ENSR Consulting Langhorne, Pennsylvania

October 1999 Project No. 2523-001

### 1.0 Introduction

The purpose of this report is to identify potential fatal flaws for siting the Empire State Newsprint Project (ESNP) at the TechCity complex in Ulster Township. ENSR looked at existing site features and potential areas of concern (AOC), and has consequently identified potential concerns associated with siting the facility on a portion of the TechCity Complex.

The proposed site is located in Ulster Township. Specifically, it is the southwestern portion of the TechCity complex, a former IBM manufacturing facility. This complex is divided into east and west parcels by Enterprise Drive. The majority of IBM manufacturing activities occurred on the eastern parcel of the complex. The proposed location for the Empire State Newsprint Project is on the western parcel, excluding the northern section.

The proposed site's eastern border (west of the Fleet Bank buildings) is parallel to Enterprise Drive. The site boundary to the north is beneath a wetland associated with a former wastewater treatment plant. The site is bound to the south by Boices Lane, along which are residential houses and a few commercial properties. The site's border to the west is marked by Esopus Creek. This parcel is approximately 95 acres; the Saugerties site was approximately 185 acres, with a plant footprint of about 65 acres. The proposed site and important site features are displayed on Figure 1, Site Map (Groundwater Sciences Corporation [GCS] 1995). Note that the Patel property, which bisects the western parcel, has been included in the potential site area although no environmental analyses have been performed on this property.

Prior to 1954, the subject site appeared to be largely undeveloped with the exception of a 2,000 foot airport runway along the west side of Enterprise Drive. Historically (1950s through 1980), the area was used as cultivated crop land, according to a GSC (1995) review of aerial photographs. Currently, the majority of the site remains undeveloped, with the exception of a Salt Barn (B070) built in the late 1980s, a farmhouse, other dwellings on the Patel property, and a large paved area (to the west of the Fleet Bank buildings).

Three office buildings located along Enterprise Drive (the eastern boundary of the subject site) are characterized as offices (GSC 1995). Fleet Bank is the current tenant. There is a large parking lot associated with these buildings.

The subject site is generally flat; it slopes gently to the west towards the Esopus Creek.

### 2.0 Document Review

TechCity's owner has provided numerous environmental documents for review, containing information regarding the entire property. The majority of information is related to environmental issues of concern within the eastern parcel.

The following table presents a list of the documents provided to ENSR for review in this assessment.

Date	Description
1/99	ERM, Spill Prevention Control and Countermeasure Plan
4/15/98	SPDES Permit NY 0108138, compliance, Action Report Analysis &
	Recommendations of Monitoring Frequencies
3/3/98	Memo with attachments Re: Title V Capping Plan, RACT Plans and
	facility's current air permits
Rev. 11/27/97	IBM Kingston SPDES Permit No. NY 0108138 Compliance Action Report,
	Stormwater Systems Modifications
4/12/96	RCRA Facilities Investigations, Soil Gas Surveys & Sewer Systems
	Sampling (through Appendix E)
9/27/95	1994-95 Annual Groundwater Monitoring Report - Vol. I
9/27/95	1994-95 Annual Groundwater Monitoring Report - Vol. II
9/27/95	1994-95 Annual Groundwater Monitoring Report - Vol. III (excludes
	Appendices E & I)
6/5/95	Phase I Environmental Site Assessment (Excludes Appendix B), by
	Groundwater Sciences Corporation
11/96	Phase I Environmental Site Assessment (Excludes Appendices B, D, E, G,
	J, K) by ERM-Northeast Inc.
11/97	Limited Phase II Environmental Site Assessment, by ERM
1/16/95	Groundwater Sciences Corp RCRA Facility Assessment - 4 Recently
_	Identified Solid Waste Management Units (Excludes Appendix F)
3/1/94	IBM Sewer Assessment Report
1994	IBM, Industrial Wastewater Treatment Plant Closure Report
7/2/93	Post Closure Permit Applications, Former Industrial Sludge Lagoon (Vols. I
	& II) (Excludes Appendices E, F, G, I, J, K, L, M)
1984-1998	Groundwater Monitoring Reports & Correspondence
Various	UST Investigations/Closures
2/87	Environmental Risk Limited, Risk Assessment Study of Storage Tanks at
	IBM Kingston (Vol. I)
	Corrective Action for Solid Waste Management Units (Vols.   &   )
Various	TechCity Environmental Permits
10/96	ERM, Indoor Air Quality Investigation
11/96	ERM, Limited Asbestos and Lead Paint Survey
1973	New York State Wetlands Map, Ulster County Map 19 of 37, Kingston West
	Quadrangle
1973	New York State Wellands Map, Duchess County Map 5 of 22, Kingston
	East Quadrangle
1999	Draft Wetland Assessment Notes, ENSR

The review of existing information also identified four boilers (and several emergency diesel generators) at the former IBM site which have valid air permits. This equipment is presented in the Air Permit Summary Table. The IBM facility applied for a modification of air certificates to operate four boiler stacks and

# IBM MHV Facility Air Permit Summary

	THC	1606	1935	563	563	ග	102	51	57	23	102	2.5	50
s (lb/yr)	8	9688	11680	2200	2200	24	278	139	154	63	278	13.4	5
Annnual Emission Limits (Ib/yr)	NOX	38752	69300	33000	33000	111	1279	639	708	290	1279	89.2	100
Annnual En	SO2	166	43520	20724	20724	7	85	43	47	19	85	42.7	100
	PM	1384	5544	2640	2640	80	91	46	51	21	91	6.3	100
	Operational Limits	276.8 MMcf/yr	924 Mgalfyr 333.7 MMcffyr	440 Mgal/yr	440 Mgalíyr	263 gal/yr	2726 galfyr	1363 gallyr	1509 galfyr	618 galfyr	2726 galíyr	Annual Potential to Emit (tpy)	Major Source Threshold (tpy)
Control	Device? (Y/N?)	8	S N	No	S	No	No O	So	Š	S	No	Annual Poter	Aajor Source
Stack	Height (ft)	45	40	40	40	25	14	10	10	æ	11	ď	2
	Source Capacity	41.7 MMBtu/hr	40.0 MMBtu/hr	40.0 MMBtu/hr	40.0 MMBtu/hr	0.2 MMBtu/hr	1.9 MMBtu/hr	1.0 MMBtu/hr	1.1 MMBtu/hr	0.5 MMBtu/hr	1.9 MMBtu/hr		
	Source Type	2 Boilers, Single Stack	Boiler	Boiler	Boiler	Emergency Generator	Emergency Generator	Emergency Generator	Emergency Generator	Emergency Generator	Emergency Generator		
Dormit	Expiration Date	11/2/00		11/2/00	11/2/00	8/29/00	8/29/00	8/29/00	8/29/00	8/29/00	8/29/00		
	Permitted Source	00001	20000	00003	00004	GK029	GK032	GK034	GK036	GK047	GK963		

six emergency generators in February 1995. There are two 20.8 MMBtu/hr boilers and three 40 MMBtu/hr boilers. The two 20.8 MMBtu/hr boilers burn natural gas; one 40 MMBtu/hr boiler burns natural gas and fuel oil; and two 40 MMBtu/hr boilers burn fuel oil. The boiler permits expire in November 2000. The packet included permits for six emergency generators that varied in size from 0.2 to 1.9 MMBtu/hr. These permits all expire in August 2000.

### Report Limitations

To date, no information has been presented to ENSR regarding the placement of a rail spur or gas, water, and electric Rights-of-Way into the site. It is known that a rail line is present east of the site, but ENSR is not aware of how a spur will be extended across the east parcel and what environmental impacts may occur.

### 3.0 Site Features

The subject site has notable features including wetlands, a surface water stream, land within the 100-year floodplain, easement and Right-of-Way (ROW), potentially historic buildings, a former underground storage tank, RCRA Solid Waste Management Units (SWMU), and a potential Area of Concern (AOC).

### Wetlands and Surface Water

ENSR reviewed the New York State Wetlands Maps that pertain to the subject site (NYDEC, 1973). These maps indicate wetlands that are protected under Article 24 of the State Environmental Conservation Law under the jurisdiction of the New York State Department of Conservation. There are no wetlands identified on these maps for the subject site. Wetlands subsequently located on the subject site would be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) Section 404 Program.

A preliminary wetland assessment was performed by ENSR scientists on October 9, and 10, 1999. Access was not available to the Patel portion of the subject property and no wetland assessment was conducted in this area. ENSR determined during this assessment that there are approximately 4.73 acres of wetlands on the subject property available for inspection. These wetlands consist of approximately 1.65 acres classified as palustrine emergent (PEM) wetlands and approximately 3.08 acres of palustrine forested/scrub-shrub/emergent (PFO/PSS/PEM) wetlands. The PEM wetlands are associated with swales and drainage channels. The PFO/PSS/PEM wetland is associated with a drainage channel that flows in a southwesterly direction near the southeastern property boundary and with an isolated wetland located near the center of the subject property.

There is dry non-vegetated channel located along the southern Patel property boundary that is associated with Esopus Creek. There was no hydrophytic vegetation associated with this channel and no evidence of flow during the field investigation by ENSR scientists. Wetland areas are displayed on the Site Map.

### 100-Year Flood Zone

GSC (1995) utilized National Flood Insurance maps from the Federal Emergency Management Agency, and identified the 100-Year Flood Line on the site plan. Approximately 28 acres (30%) of the 95-acre parcel may be within the 100-year flood zone. The actual aerial extent of the Esopus Creek floodplain relative to the site needs to be specified.

### Easement and ROW

A 30'-wide sanitary sewer easement belonging to Ulster Township is located within the floodplain near the western perimeter of the property. A 100'-wide ROW belonging to the Central Hudson Gas and Electric (CHE&G) is located at the southeastern perimeter of the property. It is unlikely that any permanent structures will be allowed to be constructed in these areas.

### Historically Significant Structures

West of the parking lot (on the Patel property) are a few related structures, which were never incorporated into the IBM site. Among these structures are a 100+ year old stone house and a barn of similar architecture. These structures are identified on the Site Map.

### Former Underground Storage Tank (UST)

To the east of B202 (buildings currently occupied by Fleet Bank) was a 5,000-gallon diesel UST installed in 1971. According to Environmental Risk Limited (1987), the tank passed a tightness test, however, due to its age, ERL recommended that the tank be replaced, and further recommended inventory monitoring. GSC (1995) confirmed that this tank was closed in October 1988 by removal. "No assessment was performed at the time of closure, reportedly because the 1986 tank testing results indicated that the tank was sound," (GSC 1995). Although the former tank was located off the proposed site, its upgradient proximity to the site was the rationale for displaying this feature on the Site Map.

### SWMU and AOC

A Solid Waste Management Unit (SWMU) is an area in which solid or hazardous wastes may have been placed over time, and the potential exists for soil and groundwater contamination. SWMU is a term used by USEPA under the RCRA Corrective Action Program; a program of which the IBM property is subject to. SWMUs are investigated in a phased manner and are either eliminated due to minimal concern or are further evaluated for corrective measures. The site contains one confirmed SWMU. The SWMU is identified as the Salt Barn Parking Lot Fill Area (approximately 350 by 450 feet), located north of the Salt Barn. According to GSC (1995), "this area received primarily parking lot sweepings consisting almost entirely of sand at the surface. Small amounts of construction debris and yard waste also have been noted in the filled area of this unit. Recent topographic mapping indicated that the fill is generally two to six feet thick. A work plan for the assessment of this SWMU was included in the

RCRA Facility Investigation, Scope of Work (RFI SOW) by Dames & Moore, 1993. In the fall of 1994, test pits were dug and monitoring wells were installed to assess this unit." Low levels of contaminants were found in this SWMU during the investigations conducted in 1994.

In a 1996 Phase I Environmental Assessment conducted by Environmental Resources Management (ERM), an area of potential disposal was identified to the southwest of the Salt Barn in a 1983 aerial photograph. ERM stated that "this area of potential disposal may be related to the construction of B025." This area has been identified as a potential AOC.

The area adjacent to and immediately north of the proposed site contains six SWMUs, including: Building 036 container storage area, wastewater treatment tanks (6), emergency wastewater holding tanks (2), former industrial waste sludge lagoon (IWSL), inactive building construction and debris landfill, and a former fire training area.

The IWSL closure was certified by a licensed professional engineer on June 12, 1985. A post-closure permit application for the former IWSL was submitted to the NYSCED on July 2, 1993. The post-closure activities approved by the NYSDEC will have to be continued for the remainder of the post-closure period. The former IWSL area can be paved and used as a parking lot or other similar uses after obtaining a variance from the deed restriction and an approval from NYSDEC.

### 4.0 Potential Issues of Concern

### Wetlands and Surface Water (Area B on the Site Map)

Disturbance of the aforementioned wetlands will require permitting under the jurisdiction of the ACOE. The type of permitting process required is dependent upon the amount of disturbance to wetlands and water bodies under the ACOE jurisdiction. Currently Nationwide Permit 26 would allow for disturbance of a maximum of 3 acres of wetlands. Wetland disturbance over 3 acres would require an Individual Permit from the ACOE.

### 100-Year Flood Zone

Approximately 28 acres along the southwest portion of the site are within the 100-year flood zone of Esopus Creek. Permits to build in this zone are obtained by variance to the local zoning ordinance. ACOE approval may be needed as well if the intrusion extends beyond the mean high water linear floodway.

### Solid Waste Management Units (SWMU)

### SWMU: Salt Barn/Parking Lot Sand Disposal Area (Area A on the Site Map)

The area to the northwest of the Salt Barn contains an SWMU that includes areas of fill and spent sand used during winter on road surfaces from facility parking lots (known as the Parking Lot Sand Disposal [PLSD] Area). According to GSC (1995), in the spring of 1993 an informal inspection of the area indicated oil stains (approximately 150 square feet) beneath snow removal equipment. There was also one small area with an odor described as "gasoline" and one that had an odor described as "parts cleaner." These areas were identified in the southeast portion of the PLSD Area. After the spill was reported to the NYSDEC, a spill response contractor hired by IBM removed 80 cubic yards of surficial soil. In addition, the contractor removed 20 cubic yards of soil from the two locations with odors. Soil was removed until there was no response from a photoionization detector (PID), and the excavated soil was disposed of off-site.

As reported in the RCRA Facility Assessment, Four Recently Identified SWMUs (GSC; January 16, 1995), soil samples were collected from seven of 16 test pits in the fill area. The seven samples were analyzed for Appendix 33 VOCs. Low levels (<1 ppm) of acetone, methyl ethyl ketone (MEK), toluene and ethylbenzene were detected in samples from two of the test pits.

Six shallow monitoring wells (MW-240S through 245S) were installed in 1994 and three rounds of groundwater sampling indicated low levels (<4 ppb) of the VOCs, TCE and TCA, the SVOC, bis (2-ethylhexyl) phthalate and pyridine; the pesticide, endosulfan II; and several metals.

SWMU: Groundwater

Site-Wide Groundwater: TechCity

Groundwater sampling has been conducted on a regular basis at the TechCity site since 1978 in response to previous discharges of chlorinated solvents. Current quarterly sampling events are reported in *Annual Groundwater Monitoring Reports* prepared by GSC on behalf of IBM. The most recent report reviewed is the 1997 *Annual Groundwater Monitoring Report* (March 30, 1998). Quarterly sampling over the last several years has been conducted on a selected group of wells in order to demonstrate the effectiveness of interceptor and recovery trenches in restricting plume migration from the eastern portion of the site. The currently mapped plume includes a small area of impact (less than 1 acre) on the site's western portion (see Area F on the Site Map). The most recently reviewed groundwater sampling results indicated the presence of the following chlorinated VOCs within this small portion of the western parcel: TCE, 1,2-DCE, 1,1,1-TCA, 1,1-DCE, 1,1-DCA, 1,1,2-TCA and 1,2-DCA. As part of their regular groundwater monitoring program, three monitoring wells (MW173S,

174S and 189S) within this area of the southwestern parcel are regularly monitored. Based on the preliminary review of the regularly reported groundwater sampling events, the existing plume is an area of concern to the western portion of the site as, at least, minor groundwater impacts to the shallow unconsolidated aquifer are already demonstrated.

### Other Potential Concerns Regarding Groundwater Quality

In addition to the reasonably well defined chlorinated VOC plume, the following additional areas of concern may provide a source of current or future groundwater contamination within the southwestern parcel:

- Known groundwater impact associated with the former sludge lagoon located immediately northwest of the Fleet Bank building (shown on the map);
- A former 5,000 gallon heating oil UST (formerly indicated as UST#1 in Environmental Risk Limited; Risk Assessment Study of Storage Tanks at IBM Kingston, February 1987) located immediately southeast of Building 202 of the current Fleet Bank facility (Area D on the Site Map). Documents reviewed subsequent to the aforementioned study indicate that this UST was removed in 1988 although no samples were collected to confirm or deny the occurrence of any release. No evidence of groundwater impact from this potential area of concern was noted during ENSR's preliminary review; and
- Although indicated for implementation in the 1993 RCRA Facility Investigation Work plan, extensive investigations of groundwater quality in the bedrock aquifer have not yet been completed. The lack of data on potential impacts to the bedrock aquifer in the plume area is a data gap that precludes opinion on potential impacts to the bedrock aquifer in the southwestern parcel. The geologic conceptual model for the site does identify the existence of a thick varved clay layer, which may prevent the vertical migration of contaminants to the bedrock aquifer. However, areas of shallow bedrock where the water table intersects bedrock may be a potential migration pathway (from the eastern to western parcel) for impact.

In addition to the above on-site potential areas of concern, four SPDES outfalls were identified north of the project site, near a former wastewater treatment plant. These outfalls currently discharge into an area with some contamination, however, the proposed facility will not utilize these outfalls and will instead discharge into the Hudson River.

### Potential Area of Concern: (Area E on the Site Map)

ERM (1996) noticed an area of potential disposal to the southwest of the Salt Barn in a 1983 aerial photograph. They state that "this area of potential disposal may be related to the construction of B025." ERM recommended that the history of on-site solid waste disposal at the site requires additional research. It is unclear whether this area has been identified by USEPA as a potential SWMU or Area of Concern.

### 5.0 Implication for Construction Actions

### **Groundwater Management**

Depth to groundwater in the southwestern portion of the site is less than 10 feet below grade in many areas. It would be expected that construction activities would encounter the water table for many required activities and appurtenances. The quality of the encountered water may represent an issue in terms of pretreatment prior to discharge or possible off-site disposal. The characterization of groundwater quality in areas to be excavated is needed to minimize potential liabilities associated with dewatering potentially contaminated groundwater.

In addition, dewatering activities associated with foundation work will induce a hydraulic stress on the unconfined (shallow) aquifer. The proximity of any dewatering activities to the existing dissolved contaminant plume located immediately east of the southwestern parcel, may affect groundwater flow patterns and draw existing contamination towards the dewatering areas. This may result in the generation of significant volumes of contaminated groundwater that may require pre-treatment prior to discharge. If groundwater is significantly impacted by off-site conditions, negotiations with state or local agencies will be necessary over the disposition of this water.

### Soil Management

The excavation of soils is likely to occur on a large scale during some phases of development of the site. Although previous investigations have found minimal impacts to soils, especially in the unsaturated zone, there is the potential for encountering soils that may require classification for potential waste disposal. Depending on the classification of contaminated soils, the soil may be disposed at an approved municipal landfill in NY State or at a licensed hazardous waste facility.

### Wetlands

The ACOE would require evidence that the project as proposed on the subject site is the best alternative and involves the least amount of disturbance to

wetlands as possible. Avoidance, minimization, and mitigation efforts would need to be presented. Avoidance refers to utilizing alternate site layouts and ROWs in order to avoid disturbing wetlands. Minimization efforts describe techniques utilized during the construction of the facility to either reduce acreage of impacted wetlands during construction or Best Management Practice techniques that would minimize the extent of the change to the wetland. Finally, mitigation efforts address compensation for permanently impacted wetlands. Mitigation may be in the form of monetary compensation for the purpose of purchasing replacement land, restoration of wetlands on another portion of the existing site, or monetary contribution to a mitigation bank.

### Historical Structures

There is an old stone house and a related barn on the Patel property which may be historic structures eligible for state or national registry. If the house site is needed for plant layout, mitigation measures, such as thorough documentation and creating a photographic record of the house will likely be required. The agencies may require further measures such as moving the house to an off-site location. The actual mitigation required will be determined through consultation with the State Historic Preservation Office (SHPO).

### 100-Year Flood Zone

The area of construction may be limited if there is a net fill limitation imposed by the Ulster Township Ordinance.

### Easement and ROW

The easement and ROW located within the property will restrict the total area available for construction.

### 6.0 Further Definition of Site

This section is intended to list data gaps pertaining to potential AOCs within the southwestern parcel listed in section 4.0 and potential AOCs from offsite sources listed in Section 5.0.

### Wetlands

The wetlands discussed in section 4.0 are largely isolated from probable offsite sources of contamination originating from the eastern portion of the site. The only potentially contaminated wetland is beyond the northern site boundary, to the west of the decommissioned wastewater treatment plant.

### SWMU: Fill/PLSD Area

The area to the northwest of the Salt Barn has been characterized by soil and shallow groundwater sampling; the results of which indicated the existence of a

variety of contaminants at low levels. The contaminants are a likely result of historical operations at the site and do not represent an AOC that would require compliance under existing regulatory programs. However, additional activities, such as the resampling of the monitoring wells, may be advisable in order to document baseline groundwater quality in this area. It is not expected that further use of this area subsequent to 1994 would be cause for concern in terms of soil quality. As such, the existing data may be deemed sufficient to characterize existing soil quality and level of impact.

### SWMU: Site-Wide Groundwater

As indicated in section 4.0, shallow groundwater quality is impacted in the southeastern portion of the southwestern parcel. Although the containment of the existing chlorinated VOC plume appears to be effective, there are significant areas of the southwestern parcel that do not contain monitoring wells, have not been previously investigated or contain wells that have not been sampled to determine the stability of the groundwater contamination. Therefore, additional baseline groundwater quality in the southwestern parcel is considered reasonable for due diligence purposes to establish current conditions. In addition, groundwater quality in the bedrock aquifer is largely unknown.

Other potential sources of groundwater contamination, the former UST and the former sludge lagoon, represent less significant potential sources. These potential sources may be addressed through sampling of existing monitoring wells that are positioned between the southwestern parcel and the aforementioned potential sources.

### Potential Area of Concern

Located southwest of the Salt Barn is a potential AOC. This possible solid waste disposal site requires additional research. Limited soil sampling is recommended to characterize soil quality in this area.

### 7.0 Summary and Recommendations

### Summary

Based on a preliminary review of documents provided for the TechCity site and a preliminary field survey for wetlands on the western parcel of the site, the following concerns are evident. (Note that the site is defined as the western parcel south of the northernmost corner of the Fleet Bank building and west of the Fleet Bank building including the Patel property displayed on Figure 1).

The site, as defined, contains approximately 4.7 acres of wetlands regulated by the ACOE. Encroachment into the wetlands may occur and mitigation will be required. A wetland survey was not performed on the Patel property.

- Approximately 30% of the site is within the 100-year floodplain. A variance from the Township is required to build in this area, and a possible review by the ACOE may be needed (permit may be required).
- There are a stone house and barn on the Patel property that may be eligible for the state or national historic register. These structures need to be characterized as to what steps should be taken in the event that this area on the Patel property is needed to layout the facility.
- There are two potential areas of contamination associated with a former landfill and a possible landfill identified on the Site Map. In addition, there exists the possibility of contaminated groundwater migration from contaminated areas on the overall TechCity property to the east (VOC plume and UST) and north (sludge lagoon, landfill area).

Please note again that ENSR has not received any information on the rail spur location or the locations of gas, water, and electric Rights-of-Way, and subsequently, has been unable to comment on these features which will likely pose environmental concerns.

### Recommendations

### Soils Characterization

Based on the results of the preliminary review of files, we recommend that an initial site investigation be conducted for soils and groundwater. The soil investigation would include:

- Characterizing soil quality in the as yet uninvestigated potential cleared area identified in historical aerial photographs;
- Characterizing soil and sediment quality in wetlands areas that may have received discharges from the IBM site; and
- Characterizing soils in potential excavation areas as part of the planned construction activities for possible waste classification and disposal (soil management).

### Groundwater Investigation

The groundwater investigation would include the sampling of existing monitoring wells as follows:

 Well or wells potentially downgradient of, or proximal to, former UST#1;

- Wells potentially downgradient of, or proximal to, the former sludge lagoon;
- Wells previously installed in the Salt Barn/Parking Lot Sand Disposal SWMU;
- Wells potentially downgradient of, or proximal to, the currently delineated chlorinated VOC plume;
- Any existing bedrock wells within the southwestern parcel would be investigated. If bedrock wells do not exist or are not located in the area of interest, then new wells would need to be developed; and
- Other selected wells at other locations within the southwestern parcel including areas where subsequent dewatering activities may be required for the development of the site (water management).

Based on the results of the proposed initial soil and groundwater investigation, additional investigative activities including, but not limited to, delineation of contaminated soils, installation and sampling of additional groundwater monitoring wells, may be indicated.

### Wetland Delineation

 The Patel property needs to be investigated to identify and delineate wetlands.

### Document Review

- The Ulster Township Ordinance needs to be reviewed to identify requirements and restrictions for construction in the floodplain;
- Deed Restrictions needs to be reviewed to identify use restrictions on the property.

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### **Privileged and Confidential**

Besicorp/Empire Development, LLC 1151 Flatbush Road Kingston, NY 12401

## **Empire State Newsprint Project Ulster Township, NY**

### **Focused Phase II Investigation**

Draft February 2-2000

Prepared By: ENSR Consulting Langhorne, Pennsylvania

February 2000 Project No. 2523-001

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### **EXECUTIVE SUMMARY**

ENSR has completed a Focused Phase II Investigation at the proposed Empire State Newsprint Project site in Ulster Township, New York. The scope of work included installation of three bedrock monitoring wells, sampling and analyses of shallow groundwater from existing wells previously installed by IBM, sampling and analyses of shallow soil and sediment in areas of potential environmental concern, a preliminary geotechnical evaluation of soils, and the development of a technical report. The purpose of the investigation was to document baseline environmental conditions, and to determine whether (a) upgradient off-site contamination has impacted the proposed ESNP site; (b) any groundwater remediation would be required; and (c) dewatering water from the proposed construction would require treatment prior to discharge to Esopus Creek.

Each bedrock well was installed to a depth of 130 feet below ground surface. Competent bedrock (shale/siltstone) was encountered at depths of 61.7 feet, 67.5 feet and 100 feet in wells BMW-1, BMW-2 and BMW-3, respectively. No appreciable quantities of groundwater were encountered in the bedrock to enable the collection of water samples for analysis or evaluation of groundwater flow in the bedrock aquifer.

Three borings were advanced in proposed construction areas for geotechnical characterization of the overburden soils. Sampling intervals were chosen to confirm continuity of characteristic soil horizons and document depths of soil type interfaces. Boring logs were developed detailing soil characteristics.

Laboratory analyses of five shallow groundwater samples revealed no detectable concentrations of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), or polychlorinated biphenyls (PCBs). Several metals (total concentrations) were detected above New York State's ambient water quality standards. Elevated concentrations of metals were also detected in two shallow soil samples and three sediment samples collected from potential areas of concern at the site. It is ENSR's professional opinion that the contaminant levels do not pose an imminent threat to human health or the environment, and that any groundwater generated during proposed dewatering associated with construction will require minimal treatment. There is no evidence that the elevated concentrations of metals in site soils, sediment or groundwater are a result of an off-site impact from the IBM property. However, some of the same metals were identified by IBM as part of their RCRA compliance efforts, and no additional action was required as part of the RCRA corrective action plan for the property.

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### 1.0 INTRODUCTION

This report presents the findings of a Phase II investigation performed by ENSR at the proposed Empire State Newsprint Project (ESNP) site, located at the southwestern portion of the TechCity complex in Ulster Township, New York (Figure 1). The Phase II investigation consisted of a focused soil and groundwater quality assessment to document baseline environmental conditions, and to determine whether: (a) upgradient off-site contamination has impacted the proposed ESNP site; (b) any groundwater remediation would be required; and (c) dewatering water from the proposed construction would require treatment prior to discharge to Esopus Creek.

The scope of work for this investigation was developed based on the findings and recommendations of ENSR's *Preliminary Summary of the TechCity Site for Environmental Considerations* dated October 29, 1999. ENSR has completed installation of three bedrock monitoring wells, groundwater sampling from five existing overburden wells, shallow soil and sediment sampling, and advancement of three soil borings for geotechnical characterization of soils (Figure 2). The following sections of this report present an overview of the investigation, including preparation activities, field observations, sampling methodologies, analytical results, conclusions and recommendations.

### 2.0 SCOPE OF WORK

### 2.1 Field Preparation

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### 2.1.1 Utility Markout

ENSR contacted the New York State Underground Facilities Protective Organization (UFPO) prior to field mobilization to coordinate a markout of underground utilities in the vicinity of the areas to be investigated. Underground utilities were identified prior to the commencement of field activities.

### 2.1.2 Health and Safety Plan

Prior to implementation of the field activities, ENSR prepared a site-specific health and safety plan (HASP) describing the proposed investigative work and the potential safety hazards anticipated for each activity. The HASP includes health and safety procedures for working on-site and emergency response procedures. A copy of the HASP is included in Appendix A.

### 2.2 Field Methodologies

### 2.2.1 Installation of Bedrock Wells

On January 11-14, 2000, Nothnagle Drilling of Scottsville, New York installed three bedrock monitoring wells (E-1, E-2 and E-3) under the supervision of an ENSR geologist. Six-inch diameter steel casing was advanced at each location through the overburden and weathered bedrock until refusal was encountered on competent bedrock. Unsaturated sand and gravel deposits were encountered to a depth of approximately 15 to 20 feet, underlain by wet, gray to brown lacustrine clay. Competent bedrock (gray shale/siltstone of the lower Hamilton Group of Devonian age) was encountered in wells E-1, E-2 and E-3 at 61.7 feet below ground surface (bgs), 67.5 feet bgs, and 100 feet bgs, respectively. Each well was installed using air rotary methods to a depth of approximately 130 feet bgs, and completed with a stick-up protective casing and locked cap. Well construction logs are provided in Appendix B. As of January 14, 2000, groundwater had not entered any of the three bedrock wells; therefore, no sampling was performed and a groundwater flow assessment was not possible. An elevation survey was performed pursuant to future completion of the assessment. Should a wet winter and spring cause groundwater to enter the boreholes, sampling of the wells may be recommended.

All drilling materials are being temporarily stored on and under plastic sheeting adjacent to each well. Due to the weather conditions at the time of installation, the drill cuttings are frozen in place. As there was no indication of contamination during drilling based on field screening methods, the drilling materials will be graded in areas that will not cause an erosion hazard.

### 2.2.2 Shallow Groundwater Quality Investigation

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ENSR gauged eight existing shallow zone monitoring wells (installed by IBM) for depth to water and bottom of well data, and sampled groundwater from five of the wells to document shallow groundwater quality. The purpose of the shallow groundwater investigation was to assess whether chlorinated VOCs detected on the upgradient IBM property have migrated to the proposed site, and whether proposed dewatering activities during construction would induce contaminant migration and impact site conditions. The depths of the wells varied from 7.80 feet (MW-1) to 62.34 feet (MW-3). Depth to water varied from 11.48 feet (MW-243S) to 26.44 feet (MW-3). No water was measured in wells MW-1 and MW-245S, and the water column within well MW-243S was insufficient to allow for purging and sampling. Based on the measured depths of wells MW-1 (7.80'), MW-245S (11.76') and MW-243S (11.73'), in comparison to the measured depths to water (12.90' to 18.90') in other nearby wells, it is evident that the seasonal water table is deeper than the screened intervals, resulting in no standing water column within these three wells. Samples were collected from wells MW-3, MW-240S, MW-241S, MW-242S and MW-244S for laboratory analysis.

Physical characteristics of the groundwater were monitored during purging of the wells to determine when a viable sample could be collected. Purging was performed using a submersible pump and hand-bailing methods, and sampling was performed utilizing dedicated disposable bailers. The groundwater samples were submitted under chain-of-custody to Friend Laboratory, Inc. (Friend Lab) of Waverly, New York for laboratory analysis. Each sample was analyzed for Target Compound List Volatile Organic Compounds (TCL VOCs), Target Compound List Semivolatile Organic Compounds (TCL SVOCs), polychlorinated biphenyls (PCBs), and total Target Analyte List Metals (TAL Metals). One field (rinsate) blank was collected and submitted for quality assurance purposes for full analysis. A trip blank accompanied the samples and was analyzed for TCL VOCs only.

Purge and decontamination water were screened with a photoionization detector (PID) for the presence of VOCs. No detectable readings were obtained; therefore, the water was discharged to the ground surface adjacent to the wells.

### 2.2.3 Sediment Sampling

ENSR collected shallow (0" to 6") sediment samples from three locations (SED-1, SED-2 and SED-3) within the drainage channel along the southern boundary of the Patel property. This drainage channel likely receives surface runoff and shallow overburden drainage from the adjacent properties. Sample SED-1 was collected from the vicinity of an observed drainage pipe, in a sediment accumulation area nearest the IBM property. SED-2 and SED-3 were collected from downstream sediment accumulations. Samples were collected using a stainless steel hand auger and/or trowel. The sediment samples were submitted under chain-of-custody to Friend Lab for laboratory analysis. Each sample was analyzed for TCL VOCs, TCL SVOCs, PCBs, and total TAL Metals.

### 2.2.4 Shallow Soil Sampling

ENSR collected shallow (12"-18") samples from a debris pile (DP-1) and a disturbed area with exposed non-native soil cover near the salt storage shed (SS-1). Samples were collected using a stainless steel hand auger and trowel. The soil samples were submitted under chain-of-custody to Friend Lab for laboratory analysis for TCL VOCs, TCL SVOCs, PCBs, and total TAL Metals.

### 2.2.5 Geotechnical Borings

Maxim Technologies, Inc. of Mechanicville, New York advanced three soil borings (GT-1, GT-2 and GT-3) under the supervision of an ENSR geologist in areas of proposed structures associated with the Empire State Newsprint Project. Soil samples were collected using direct drive drilling techniques and a two-foot or four-foot macrocore sampling device. Sampling was performed continuously at location GT-2 for full characterization of the soil column. Sampling was performed in the other two locations at intervals appropriate to confirm continuity of characteristic soil horizons and document depths of soil type interfaces. Soils were characterized using the Unified Soil Classification System and Munsell Color Charts. Boring logs are provided as Appendix C.

#### 3.0 ANALYTICAL RESULTS

### 3.1 Shallow Groundwater Quality Investigation

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Table 1 summarizes the shallow groundwater analytical data. All analytical results for organic constituents are below screening levels recognized by the State of New York. There were no VOCs, SVOCs, or PCBs detected in any of the groundwater samples above method detection limits. There is no evidence in the groundwater samples of an off-site impact from the IBM property. If organic contaminants existed in the on-site monitoring wells in the past, the contaminants have since attenuated to below detection levels.

The analytical results for TAL Metals indicate that several metals (total concentrations) were detected in the shallow groundwater above New York State Water Quality Standards for Surface Waters and Groundwater (6 NYCRR 703.5, Table 1). Ambient surface water quality standards would be used to derive effluent limits for the point source discharges to a surface water body (e.g., dewatering discharge to Esopus Creek during construction). Table 1 summarizes the total metals results for each of the five shallow groundwater samples in comparison to the ambient groundwater standards and surface water quality standards for Esopus Creek (Class C, fresh surface water). Since the best usage of Class C waters is fishing, most of the ambient surface water quality standards are derived based on the aquatic chronic impact.

The preliminary laboratory analytical data reports are provided as Appendix D. The final laboratory report package will be forwarded upon receipt.

#### 3.2 Sediment Sampling

Table 2 provides a summary of the sediment quality data in comparison to the New York State Technical and Administrative Guidance Memorandum (TAGM) recommended soil cleanup objectives. TAGM's generic soil cleanup objectives are intended to eliminate all significant threats to human health and/or the environment posed by the site under evaluation. For heavy metals, eastern United States or New York State soil background levels are used as soil cleanup objectives, although generic recommended soil cleanup objectives have been established for certain metals. Generally, the TAGM criteria are used by New York State as screening criteria and they do not represent a remediation requirement. Any required remediation would be based on a site-specific assessment of site background levels and actual risks to human health and the environment.

The laboratory results indicate that no VOCs, SVOCs or PCBs are present in the sediment samples above the method detection limits. With respect to inorganic constituents in sediment, low levels of beryllium, calcium, chromium, iron, nickel, and zinc were detected above their respective generic

TAGM recommended soil cleanup objectives or typical eastern U.S. background ranges. Beryllium was detected at 0.34 mg/kg in SED-1; calcium was detected at 36,100 mg/kg in sediment sample SED-1; chromium was detected at 22.7 mg/kg in SED-1; iron was detected at 16,400 mg/kg in SED-1, 10,400 mg/kg in SED-2, and 13,900 mg/kg in SED-3; nickel was detected at 39.2 mg/kg in sediment sample SED-1, 19.7 mg/kg in SED-2, and 17.3 mg/kg in SED-3; and zinc was detected at 427 mg/kg in SED-1, 37.4 mg/kg in SED-2, and 69.6 mg/kg in SED-3.

### 3.3 Shallow Soil Sampling

Table 3 provides a summary of the soil quality data. No VOCs or PCBs were detected above method detection limits in either sample. With the exception of 89 mg/kg of benzo(b)fluoranthene detected in soil sample DP-1, which was obtained from a debris pile, there were no semivolatile organic compounds detected in either of the shallow soil samples analyzed. This concentration, however, is far below the New York State TAGM criteria for benzo(b)fluoranthene.

TAL Metals were detected in both soil samples analyzed. Concentrations of iron, nickel, and zinc in both soil samples exceeded the generic TAGM recommended soil cleanup objectives or typical eastern U.S. background ranges. Iron was detected at 14,900 mg/kg in sample DP-1 and 13,400 mg/kg in SS-1; nickel was detected at 14.5 mg/kg in sample DP-1 and 15.2 mg/kg in SS-1; and zinc was detected at 67.6 mg/kg in DP-1 and at 33.9 mg/kg in SS-1.



#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

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The rock encountered in each bedrock monitoring well installed by ENSR was composed of bedded shale and siltstone, which is part of the Devonian Lower Hamilton Group. Very often when drilling in siltstone and sandstone bedrock, it is difficult to determine whether water bearing fractures are encountered due to the air rotary methods and heat generated through drilling. ENSR allowed the wells to "rest" for a few hours with the hope of encountering sufficient water for sampling. No water was measured in any of the wells prior to ENSR's departure from the site. Depth to significant water bearing fractures appears to be greater than 130 feet. It is important to recognize, however, that a wet winter and spring could raise water levels within the bedrock aquifer such that sufficient quantities of groundwater may exist in the future. However, from a hydrogeologic perspective, the probability of an off-site influence from IBM is greatly diminished because the hydraulic conductivity of the bedrock formation is so small.

The analytical results obtained from shallow groundwater samples do not indicate an off-site impact from the IBM property; however, elevated total concentrations of metals were detected in the samples. Most of the metal ambient water quality standards are for dissolved (filtered samples) metals and the sample results obtained during this investigation are total metals (unfiltered samples). It is important to recognize that the "total metals" concentration reported in the shallow monitoring wells may be biased high. ENSR believes the presence of increased suspended sediment in the samples (particularly clay particles) have resulted in elevated inorganic concentrations. ENSR's experience has shown that metals concentrations from field-filtered samples (e.g. "dissolved metals") will generally be less than "total metals" analyses by an order of magnitude or more. It appears that all of the shallow monitoring wells have a portion of their well screens penetrating the underlying clay unit at the site, which is consistent with a suspended sediment theory. The anomalous concentrations of iron and aluminum in the water samples further supports a suspended sediment bias in the samples.

Furthermore, it should be recognized that the results are from shallow wells over a landfill area, and are likely to reflect the worst case. If the contamination is associated with leachate from the landfill, then the dewatering water from a larger area is likely to have lower levels of inorganic metals due to dilution effect. Any treatment of extracted groundwater prior to surface water discharge would be based on actual impacts to human health and the environment as well as an assessment of the receiving water body and its ability to accept inorganic constituents.

ENSR recommends that the wells be resampled for dissolved metals (in addition to total metals). This resampling will account for any biases related to suspended sediment in the samples, and the data will provide the necessary information to design an appropriate groundwater treatment system for construction dewatering.

ENSR has compared the groundwater quality data from the shallow overburden wells to the in-stream water quality criteria for Esopus Creek. Based on the total metals results received to date, it appears that groundwater generated during proposed dewatering will require minimal treatment. While some of the building foundations will be constructed on pilings, it is expected that dewatering will be necessary to construct certain structures such as the paper machines. Without actual pump test data, it is difficult to predict the volume of groundwater to be generated during construction dewatering. However, the presence of a significant underlying clay and the presence of an overlying sand and gravel unit with a saturated thickness of only two to three feet (i.e. low transmissivity), indicates that dewatering may be easily achieved by pumping a well-point system. Given that excessive dewatering is not expected based on existing site conditions, ENSR believes that any water requiring treatment prior to discharge to Esopus Creek may be treated using relatively inexpensive conventional technologies such as settling tank or basin and filtration to remove suspended solids thereby reducing the total metals in the effluent discharged to the Creek. In ENSR's opinion, further treatment such as polymer addition and pH adjustment is not likely to be needed for dewatering water discharge to Esopus Creek. This can be confirmed after reviewing the filtered and unfiltered sample results for the inorganic metals. Assuming the total metals data is representative of the shallow groundwater quality, and the volume of water generated during construction dewatering is consistent with the site conditions identified by ENSR during its recent investigations (less than 100,000 gpd), it is ENSR's professional opinion that such treatment, if required, will not exceed \$1 million during construction.

It is ENSR's understanding that a municipal water supply serves the property. Due to the increased levels of naturally occurring inorganics, and the high clay content, groundwater from the shallow overburden unit (<50' depth) is generally not considered suitable for potable supply purposes. Virtually all of the wells used for potable water are completed as deep bedrock wells. While many of these metals, such as calcium, iron, magnesium, manganese, potassium, and sodium occur naturally in sediments and may be within acceptable background concentrations for this area, the presence of lead, nickel, and chromium appear to be anomalous and does not appear to be consistent with a background origin. It is possible that the lead, nickel, and chromium may be related to past disposal practices on the property. Much of the area evaluated by ENSR consists of disturbed land that was likely filled with soil materials to raise its topographic elevation.

The review of the limited TechCity data supplied to ENSR also showed that some of these metals were also present in the shallow monitoring wells installed by IBM as part of their RCRA compliance efforts. However, no additional action was required as part of the RCRA corrective action plan for the property. New York's Groundwater Quality Standards are based on drinking water criteria. Non-compliance with these levels does not necessarily entail a remediation requirement, since these levels are used solely by NYDEC as a screening criteria. ENSR's experience has shown that the contaminant levels detected in the groundwater do not pose an imminent threat to human health and the environment.

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**TABLES** 

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Groundwater Sampling Results Empire State Newsprint Uister Township, NY Table 1

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	Ambiant Water Quelity Standards Esopus Creek Class C freshweters	Groundwater Quality Standards	MW-240S	MW-241S	MW-242S	MW-244S	MW-3
		9	2.460	42 400	757	20.500	47,300
Aluminum	9	2 .		2	Ş	Q	8
Antimony	2	o 8	į ,	2 5	Ş	8	
Arsenic	061	Q.	o	2 :	2 2	7	242
Barium	SZ	1,000	25	<u> </u>	2	71	3 :
Calcius	SZ	SS	75,600	84,600	91,400	26,000	ď Z
Chromina		20	2	53	2	2	917
	; k	S Z	S	25	2	ल	2
Copar	? u	200	2	8	2	37	149
Copper	n 000	86	14 700	\$7.700	20.400	42,400	124,000
ron	one.	3, 3			*	2	φ
Lead	7	\$2	4	2	- !		2000
Magnesium	SS	SN	11,100	16,800	11,300	12,900	43,900
Mannahese	SZ	300	3,210	1,680	2,300	2,690	6,480
Merciny	0.0007	0.7	2	2	2	2	2
Misted y	34	100	2	7	2	47	903
Aliche Dotoscii m	. v.	SZ	8.450	11.500	6,720	9,800	9,140
TOIGNOIGH	) V	טטטט	89.300	78.500	62.200	105,000	7,360
SOCIOLIN	) **	SIN SIN	2	3	Ş	24	3
Vanadium	Ξ	2	2 6	; ;	9	2	240
Zluc	49	SS	23	153	2	901	200

Notes:

All results are reported in µg/L

Bold indicates result exceeds the Ambient Weiter Quality Standards for Esopus Creek. Ambient Water Quality Standards for Esopus Creek (Ref. NYCRR 703.5) Groundwater Quality Standards (Ref. NYCRR 703.5)

NS: No Standard

Aluminum criteria based on squaluc chronic criteria; A(C)
Chromium, copper, leed, nickel, and zinc criteria based on 54 mg/l hardness, dissolved; A(C)
Marcury criteria based on Fish Consumption Heath criteria; H(FC)
Vanadium criteria (acid soluble) is based on aquatic chronic criteria; A(G).
Iron and mangenese combined concentretion shall not excood 500 µg/L.
Where a standard exists for groundwater quality, it is based on drinking water use; H(WS)

Table 2 Sediment Sampling Results Empire State Newsprint **Uister Township, NY** 

Sample Designation Date Collected Time Collected Sample Depth (feet)	NYSDEC TAGM Recommended Soil Cleanup Objectives	SED-1 1/11/00 1235 0-0.5'	SED-2 1/11/00 1450 0-0.5'	SED-3 1/11/00 1455 0-0.5'
TCL Volatile Organic Compounds (ug/kg)	NS	ND	ND	ND.
TCL Semivolatile Organic Compounds (ug/kg)	NS.	ND	ŅD	ΝÖ
Target Analyte Metals (mg/kg)				
Aluminum	33,000"	8,920	5,340	7,220
Antimony	NS*	7.74	ND	ND
Barlum	300	139	41.6	37.5
Beryllium	0.16	0.335	ND	ND
Calcium	130-35,000*	36,100	576	1,050
Chromium	10	22.7	7.04	8.83
Cobalt	30	8.99	3.87	5.26
Copper	25	13.8	6.13	12.5
Iron	2.000	16,400	10,400	13,900
Lead	NS*	41.1	11.8	19.1
Magnesium	100-5,000*	2,870	1.930	2,630
Manganese	50-5,000*	4,800	1,910	277
Nickel	13	39.2	19.7	17.3
Potassium	8,500-43,000*	746	378	432
Sodium	6,000-8,000*	176	69	62.8
Vanadium 	150	18.1	7.8	10.5
Zinc	20	427	37.4	69.6
PCBs (mg/kg)	Ņs	ND	ND	ND

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ND: Not detected at laboratory quantification limit NS: No standard established Bold indicates concentration above NYSDEC TAGM

^{*}Cleanup objective is based on site background concentrations. An eastern U.S. background range is provided where available.

Ref: Technical and Administrative Guidance Manual

Where a background range is not provided, the TAGM is based on unrestricted direct contact exposure.

Table 3 Soil Sampling Results Empire State Newsprint Ulster Township, NY

Sample Designation Date Collected Time Collected Sample Depth (feet)	NYSDEC TAGM Recommended Soil Cleanup Objectives	DP-1 1/11/00 1535 1-1.5'	SS-1 1/11/00 1615 1-1.5'
TCL Volatile Organic Compounds (ug/kg)	NS	ND	ND.
TCL Semivolatile Organic Compounds (ug/kg) Benzo(b)fluoranthene	NS 1,100	/ 1. <b>89 J</b>	ND
Target Analyte Metals (mg/kg)			
Aluminum-	33000•	10,100	6,940
Barium	300	46.5	15.8
Calcium	130-35,000*	2,230	150
Chromium	10	9.92	7.39
Cobait	30	4.86	5.71
Copper	25	19	7.06
Iron	2,000	14,900	13,400
Lead	NS*	37.5	10
Magnesium	100-5,000°	2,120	2,540
Manganese	50-5,000*	269	363
Nickel	13	14.5	15.2
Potassium	8,500-43,000*	638	593
Sodium	6,000-8,000*	64_1	45.9
Vanadium	150	13.4	9.26
Zinc	20	67.6	33.9
PCBs (mg/kg)	NS	ND	NO

ND: Not detected at laboratory quantification limit

NS: No standard established

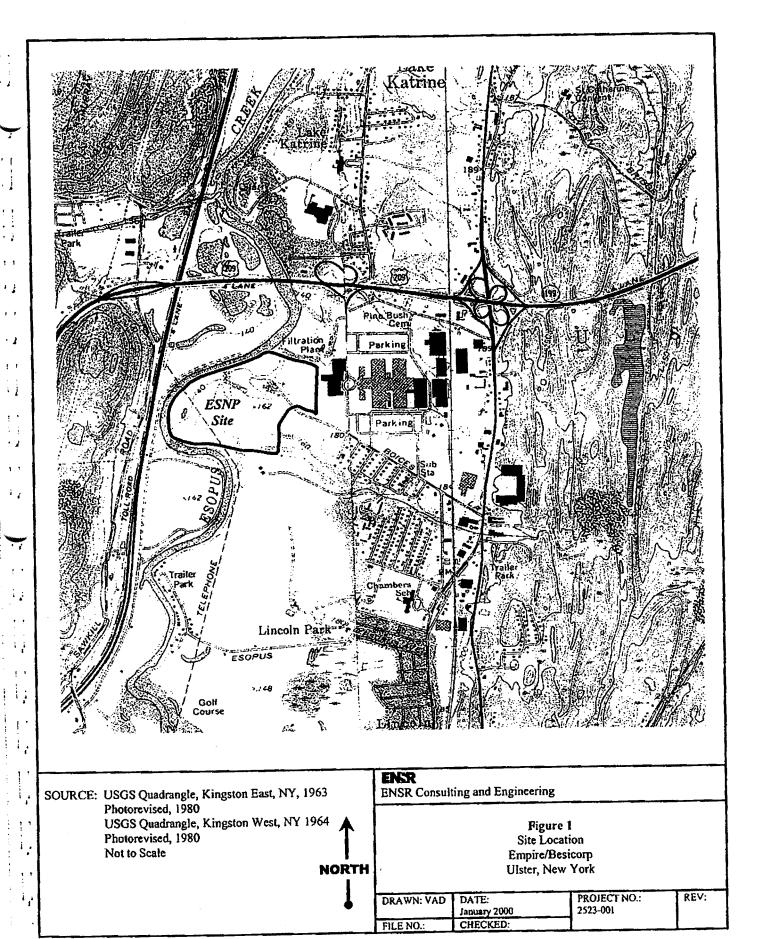
Bold indicates concentration above NYSDEC TAGM

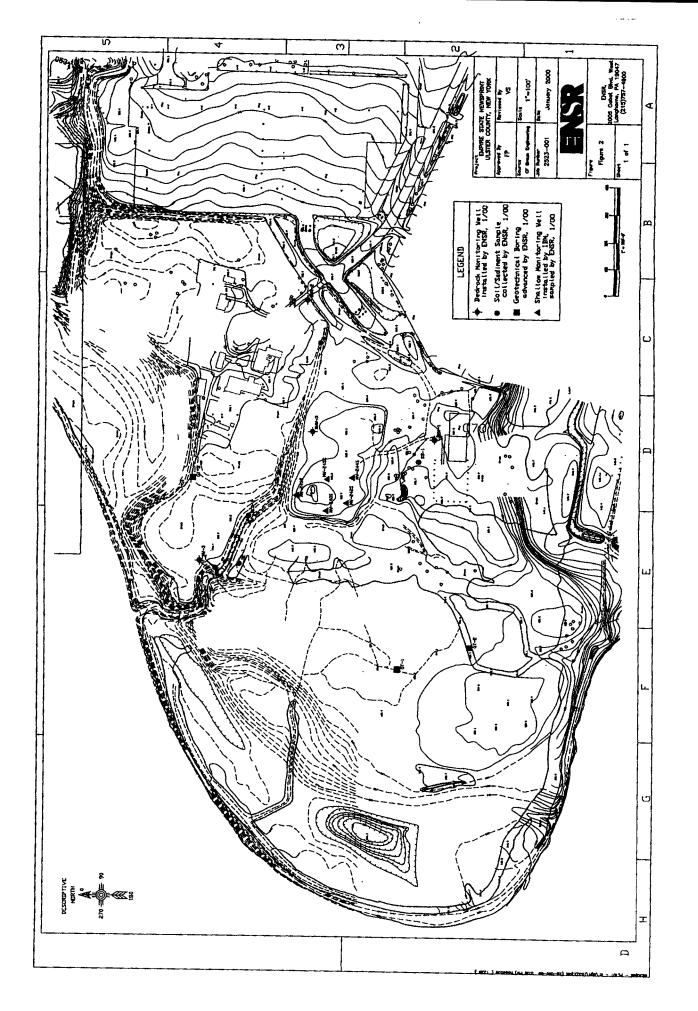
*Cleanup objective is based on site background concentrations. An eastern U.S. background range is provided where available. Ref: Technical and Administrative Guidance Manual

Where a background range is not provided, the TAGM is based on unrestricted direct contact exposure.

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**FIGURES** 





**APPENDIX A** 

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## HEALTH AND SAFETY PLAN

Preliminary Soil. Sediment and Groundwater Investigation at
Southwestern Parcel
Ulster Township, New York

Prepared by:	Kathleen Harvey		
Approved by:	ENSR Regional Health and Safety Manager	Date:	
Approved by:	ENSR Project Manager	Date:	

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### 1. Introduction

### 1.1 HASP Applicability

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This site-specific Health and Safety Plan (HASP) has been developed by ENSR Consulting and Engineering (ENSR). It establishes the health and safety procedures to minimize any potential risk to ENSR and contractor personnel involved with the implementation of the preliminary soil, sediment and groundwater investigation at the southwestern parcel at the TechCity Site in Ulster Township, New York. ENSR is performing this work at the request of Bessicorp Group Inc.

The provisions of this plan apply to all ENSR personnel and ENSR subcontractor personnel who may potentially be exposed to safety and/or health hazards related to activities described in Section 3.0 of this document.

This HASP has been written to comply with the requirements of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120). All activities covered by this HASP must be conducted in complete compliance with this HASP and with all applicable federal, state, and local health and safety regulations. Personnel covered by this HASP who cannot or will not comply will be excluded from site activities.

This plan will be distributed to each employee involved with investigations at the site. Each employee must sign a copy of the attached health and safety plan receipt and acceptance form (see Attachment A).

This HASP only pertains to the tasks that are listed in Section 3.0. A task specific HASP or addenda to this HASP will be developed at a later date for any other subsequent investigative/remedial activities at the site.

## 1.2 Organization/Responsibilities

The implementation of health and safety at this project location will be the shared responsibility of the ENSR Project Manager (PM), the ENSR Regional Health and Safety Manager (RHSM), the ENSR Project Site Safety Officer (SSO) and all other ENSR and contractor personnel.

## 1.2.1 ENSR Project Manager

The ENSR PM (Ron Carper) is the individual who has the primary responsibility for ensuring the overall health and safety of this project. As such, the PM is responsible for ensuring that

the requirements of this HASP are implemented. Some of the PM's specific responsibilities include:

- Assuring that all personnel to whom this HASP applies have received a copy of it;
- Providing the RHSM with updated information regarding environmental conditions at the site and the scope of site work;
- Providing adequate authority and resources to the on-site SSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SSO and RHSM;
- Maintaining regular communications with the SSO and, if necessary, the RHSM; and,
- Coordinating the activities of all subcontractors and ensuring that they are aware of the
  pertinent health and safety requirements for this project.

## 1.2.2 ENSR Regional Health and Safety Manager

The ENSR RHSM (Kathleen Harvey) is the individual responsible for the preparation, interpretation and modification of this HASP. Modifications to this HASP which may result in less stringent precautions cannot be undertaken by the PM or the SSO without the approval of the RHSM. Specific duties of the RHSM include:

- · Writing, approving and amending the HASP for this project;
- Advising the PM and SSO on matters relating to health and safety on this site;
- Recommending appropriate personal protective equipment (PPE) and air monitoring instrumentation to protect personnel from potential site hazards;
- · Conducting accident investigations; and,
- Maintaining regular contact with the PM and SSO to evaluate site conditions and new information which might require modifications to the HASP.

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## 1.2.3 ENSR Site Safety Officer

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All ENSR field technicians are responsible for implementing the safety requirements specified in this HASP. However, one field technician will serve as the SSO. The SSO will be appointed by the PM. The SSO will be on-site during all activities covered by this HASP. The SSO is responsible for enforcing the requirements of this HASP once work begins. The SSO has the authority to immediately correct all situations where noncompliance with this HASP is noted and to immediately stop work in cases where an immediate danger is perceived. Some of the SSO's specific responsibilities include:

- Assuring that all personnel to whom this HASP applies have submitted a completed copy of the HASP receipt and acceptance form;
- Assuring that all personnel to whom this HASP applies have attended a pre-entry briefing prior to entering an exclusion zone;
- Maintaining a high level of health and safety consciousness among employees at the work site;
- Procuring and distributing the PPE needed for this project for ENSR employees;
- Procuring the air monitoring instrumentation required and performing air monitoring for ENSR activities;
- Verifying that all PPE and health and safety equipment is in good working order;
- Setting up and maintaining the decontamination zone and assuring proper cleanup of all site personnel;
- Notifying the PM of all noncompliance situations and stopping work in the event that an immediate danger situation is perceived;
- Monitoring and controlling the safety performance of all personnel within the established restricted areas to ensure that required safety and health procedures are being followed;
- Conducting accident/incident investigations and preparing accident/incident investigation reports;

- Conducting the pre-entry briefing as required by Section 10.2.1 of the HASP; and,
  - Initiating emergency response procedures in accordance with Section 11.0 of this HASP.

## 1.2.4 ENSR Field Personnel and Covered Contractor Personnel

All ENSR field personnel and contractor personnel covered by this HASP are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of on-site work;
- Submitting a completed HASP Acceptance Form and documentation of medical surveillance and training to the ENSR PM prior to the start of work;
- Attending the required pre-entry briefing prior to beginning on-site work;
- Bringing forth any questions or concerns regarding the content of the HASP to the PM or the SSO prior to the start of work;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the ENSR SSO; and
- Complying with the requirements of this HASP and the requests of the SSO.

## 1.2.5 Subcontractors

In addition to other requirements referenced in this HASP, all contractors are required to:

- Provide appropriate PPE for their employees;
- Ensure, via daily inspections, that their equipment is maintained in good working condition;
- Operate their equipment in a safe manner; and
- Appoint an on-site safety coordinator to interface with the ENSR SSO.

### 1.3 Modification of the HASP

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The procedures in this HASP have been developed based on the *Preliminary Summary of the TechCity Site for Environmental Considerations Report* prepared by ENSR in October, 1999. Should additional information become available regarding potential on-site hazards, it may be necessary to modify this HASP. All proposed modifications to this HASP must be reviewed and approved by the ENSR RHSM before such modifications are implemented.

Any significant modifications must be incorporated into the written document as addenda and the HASP must be reissued. The ENSR PM will ensure that all personnel covered by this HASP receive copies of all issued addenda. Sign-off forms will accompany each addendum and must be signed by all personnel covered by the addendum. Sign-off forms will be submitted to the ENSR PM. The HASP addenda should be distributed during the daily safety meeting so that they can be reviewed and discussed. Attendance forms will be collected during the meeting.

# 2. Site Description and History

## 2.1 Site Description

The proposed site is located in Ulster Township. Specifically, it is the southwestern portion of the TechCity complex, a former IBM manufacturing facility. The complex is divided into east and west parcels by Enterprise Drive. The majority of IBM manufacturing activities occurred on the eastern parcel of the complex. The western parcel, excluding the northern section, is the proposed location for the Empire State Newsprint Project.

Prior to 1954, the subject site appeared to be largely undeveloped with the exception of a 2,000 foot airport runway along the west side of Enterprise Drive. Historically, the area was used as cultivated cropland. Currently, the majority of the site remains undeveloped, with the exception of a Salt Barn (B070) built in the late 1980s, a farmhouse, other dwellings on the Patel property (which bisects the western parcel) and a large paved area. There are three office buildings located along Enterprise Drive (the eastern boundary of the subject site). Fleet Bank is the current tenant. There is a large parking lot associated with these buildings.

### 2.2 Site Investigations

ENSR has prepared a report to identify fatal flaws for siting the Empire State Newsprint Project at the TechCity complex. ENSR looked at existing features and potential areas of concern (AOC) to identify any potential concerns associated with siting the facility on the southwestern portion of the complex. ENSR's findings include the following:

- A potential disposal area is located to the southwest of the Salt Barn and may be related to the construction of B025.
- Groundwater sampling has been conducted on a regular basis at the complex since 1978 in response to previous discharges of chlorinated solvents. The currently marked plume includes a small area of impact on the site's western portion.
- A known groundwater impact associated with the former sludge lagoon is located immediately northwest of the Fleet Bank Building.
- ➤ A former 5,000-gallon heating oil underground storage tank (UST #1) was removed in 1988 although no samples were collected to confirm or deny the occurrence of a release.
- Groundwater quality in the bedrock aquifer has not been characterized.

## 3. Scope of Work

To address the findings and recommendations in ENSR's *Preliminary Summary of the TechSite for Environmental Considerations Report*, the following on-site field tasks will be implemented:

- collect surface soil samples from the potential disposal area located southwest of the Salt Barn;
- install bedrock groundwater monitoring wells, using air-rotary drilling techniques;
- conduct two rounds of well gauging in new and existing wells to determine groundwater flow and gradient across the site;
- collect groundwater samples from newly installed groundwater wells and from selected existing shallow zone monitoring wells for subsequent laboratory analyses; and.
- collect sediment samples from several isolated wetlands and a drainage swale of unknown former use but which originates on the IBM property

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## 4. Chemical Hazard Assessment and Controls

#### 4.1 Chemical Hazards

### 4.1.1 Chlorinated Solvents in Groundwater

Overexposure to the chlorinated organic solvents likely to be present in the site groundwater may result in depression of the central nervous system, symptoms of which include, dizziness, headache, giddiness and drunken-like behaviors. Chronic overexposures can result in liver and kidney damage.

### 4.1.2 Fuel Oils

It is possible that fuel oil may be present in groundwater due to a former 5,000-gallon heating oil UST. Fuel oil is generally considered to be of moderate to low toxicity. Federal or recommended airbome exposure limits have not been established for the vapors of fuel oil. Inhalation of the vapor or mist may cause headache, dizziness, nausea, vomiting and a loss of coordination. Inhalation of high concentrations of the vapors may cause extensive pulmonary edema. Chronic direct skin contact with the liquids may produce skin irritation as a result of defatting. Repeated skin contact may also cause irritation of the hair follicles and block the sebaceous glands. This produces a rash of acne pimples and spots, usually on the arms and legs.

## 4.1.3 Hazardous Substances Brought On-Site by ENSR

A material safety data sheet (MSDS) must be available for each hazardous substance that ENSR bring on the property. This includes solutions/chemicals that will be used to decontaminate sampling equipment. All containers of hazardous materials must be properly labeled in accordance with OSHA's Hazard Communication Standard.

## 4.2 Chemical Exposure and Control

## 4.2.1 Chemical Exposure Potential

The site may be impacted by previous activities associated with former IBM manufacturing operations. It is therefore possible that the field team will encounter contaminated soil and/or groundwater during this investigation. While the concentrations of contamination are not expected to be significant, the use of air rotary drilling techniques may increase the amount of dusts and vapors generated during well installation. The primary routes of exposure to the contaminants of concern are expected to be:

dermal contact with soil and/or groundwater during sample collection.

HASP for Preliminary Investigations Southwestern Parcel, TechCity Site Ulster Township, New York

February, 2000

Inhalation of vapors/dusts during bedrock well drilling

## 4.2.2 Chemical Exposure Control

ENSR will be conducting air monitoring to determine the presence of volatile organic vapors during the proposed drilling. As a precaution, if exposures exceed the action levels as defined in Section 6.1, respiratory protection as discussed in Section 7.2, will be donned.

To avoid direct dermal contact with contaminated media, protective clothing, as described in Section 7.1, will be required when collecting samples and decontaminating sampling equipment.

Although highly unlikely, exposure to all of the contaminants of concern may occur via ingestion (hand-to-mouth transfer). The decontamination procedures described in Section 9.0 address personal hygiene issues that will limit the potential for contaminant ingestion.

## 5. Physical Hazards and Controls

### 5.1 Underground Utility Hazards

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New York law requires that, at least 48 hours prior to initiation of any subsurface work, a utility clearance be performed at the site. ENSR has contacted the Underground Facilities Protective Organization (1-800-962-7962) to request a mark-out of utilities in the proposed drilling locations. Work will not begin until the required utility clearances have been performed.

Public utility clearance organizations typically do not mark-out underground utility lines that are located on private property. As such, ENSR must exercise due diligence and try to identify the location of any private utilities on the properties being investigated. ENSR can fulfill this requirement in several ways, including:

- obtaining as-built drawings for the areas being investigated from the property owner
- identifying a no-drill zone at each property;
- hand digging in the proposed boring locations if insufficient data is available to accurately determine the location of the utility lines;
- performing a line locating survey; or
- hiring a private line locating firm to determine the location of utility lines that are present at the property

#### 5.2 Overhead Hazards

Be particularly aware of overhead power lines in the work area. Any vehicle or mechanical equipment capable of having parts of its structure elevated (drill rig, crane etc.) near energized overhead lines shall be operated so that a clearance of at least 10 feet is maintained. If the voltage is higher than 50kV, the clearance shall be increased 4 inches for every 10kV over that voltage...

## 5.3 Drilling Hazards

Use of a drill rig to install bedrock groundwater monitoring wells will require all personnel in the vicinity of the operating rig to wear steel-toed boots, hardhats, hearing protection and safety eyewear. Personnel shall not remain in the vicinity of operating equipment unless it is required for their work responsibilities.

Additionally, the following safety requirements must be adhered to:

- All drill rigs and other machinery with exposed moving parts must be equipped
  with an operational emergency stop device. Drillers and geologists must be aware
  of the location of this device. This device must be tested prior to job initiation and
  periodically thereafter. The driller and helper shall not simultaneously handle
  augers unless there is a standby person to activate the emergency stop.
- The driller must never leave the controls while the tools are rotating unless all personnel are kept clear of rotating equipment.
- A long-handled shovel or equivalent must be used to clear drill cuttings away from the hole and from rotating tools. Hands and/or feet are not to be used for this purpose.
- A remote sampling device must be used to sample drill cuttings if the tools are
  rotating or if the tools are readily capable of rotating. Samplers must not reach into
  or near the rotating equipment. If personnel must work near any tools which could
  rotate, the driller must shut down the rig prior to initiating such work.
- Drillers, helpers and geologists must secure all loose clothing when in the vicinity
  of drilling operations.
- Only equipment which has been approved by the manufacturer may be used in conjunction with site equipment and specifically to attach sections of drilling tools together. Pins that protrude excessively from augers shall not be allowed
- No person shall climb the drill mast while tools are rotating.
- No person shall climb the drill mast without the use of ANSI-approved fall protection (approved belts, lanyards and a fall protection slide rail) or portable ladder which meets the requirements of OSHA standards.

## 5.4 Noise Exposure

The use of the drilling rig will generate noise levels that will require the use of hearing protection in the immediate vicinity. Appropriate earmuffs or earplugs (i.e., with an NRR greater than 25 dB) should be worn to prevent overexposure. The general rule of thumb is that if you have to raise your voice to be understood by someone who is standing 3 to 5 feet away

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from you, the noise levels are likely to be above 85 dB and therefore require the use of hearing protection.

### 5.5 Back Safety

Using the proper techniques to lift and move heavy pieces of equipment, such as drums of investigation-derived wastes or sample coolers, is important to reduce the potential for back injury. The following precautions should be implemented when lifting or moving heavy objects.

- Use mechanical devices to move objects, such as drums of investigation derived wastes or generators, that are too heavy to be moved manually
- If mechanical devices are not available, ask another person to assist you.
- Bend at the knees, not the waist. Let your legs do the lifting.
- Do not twist while lifting
- Bring the load as close to you as possible before lifting
- Be sure the path you are taking while carrying a heavy object is free of obstructions and slip,trip and fall hazards

#### 5.6 Cold Stress

### Types of Cold Stress

Cold injury is classified as either localized, as in frostbite, frostnip or chilblain; or generalized, as in hypothermia. The main factors contributing to cold injury are exposure to humidity and high winds, contact with wetness and inadequate clothing.

The likelihood of developing frostbite occurs when the face or extremities are exposed to a cold wind in addition to cold temperatures. The freezing point of the skin is about 30° F. The fluids around the cells of the body tissue freeze, causing the skin to turn white. This freezing is due to exposure to extremely low temperatures. As wind velocity increases, heat loss is greater and frostbite will occur more rapidly.

#### Symptoms of Cold Stress

The first symptom of frostbite is usually an uncomfortable sensation of coldness, followed by numbness. There may be a tingling, stinging or aching feeling in the effected area. The most vulnerable parts of the body are the nose, cheeks, ears, fingers and toes.

Symptoms of hypothermia, a condition of abnormally low body temperature, include uncontrollable shivering and sensations of cold. The heartbeat slows and may become irregular, the pulse weakens and the blood pressure changes. Pain in the extremities and severe shivering can be the first warning of dangerous exposure to cold.

Maximum severe shivering develops when the body temperature has fallen to 95° F. This must be taken as a sign of danger and exposure to cold must be immediately terminated. Productive physical and mental work is limited when severe shivering occurs.

#### Methods to Prevent Cold Stress

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When the ambient temperature, or a wind chill equivalent, falls to below 40° F (American Conference of Governmental Industrial Hygienists recommendation), site personnel who must remain outdoors should wear insulated coveralls, insulated boot liners, hard hat helmet liners and insulated hand protection. Wool mittens are more efficient insulators than gloves. Keeping the head covered is very important, since 40% of body heat can be lost when the head is exposed. If it is not necessary to wear a hard hat, a wool knit cap provides the best head protection. A face mask may also be worn.

Persons should dress in several layers rather than one single heavy outer garment. The outer piece of clothing should ideally be wind and water proof. Clothing made of thin cotton fabric or synthetic fabrics such as polypropylene is ideal since it helps to evaporate sweat. Polypropylene is best at wicking away moisture while still retaining its insulating properties. Loosely fitting clothing also aids in sweat evaporation. Denim is not a good protective fabric. It is loosely woven which allows moisture to penetrate. Socks with a high wool content are best. If two pairs of socks are worn, the inner sock should be smaller and made of cotton, polypropylene or a similiar type of synthetic material that wicks away moisture. If clothing becomes wet, it should be taken off immediately and a dry set of clothing put on.

If wind conditions become severe, it may become necessary to shield the work area temporarily. The SSO and the PM will determine if this type of action is necessary. Heated break trailers or a designated area that is heated should be available if work is performed continuously in the cold at temperatures, or equivalent wind chill temperatures, of 20° F.

Dehydration occurs in the cold environment and may increase the susceptibility of the worker to cold injury due to significant change in blood flow to the extremities. Drink plenty of fluids, but limit the intake of caffeine.

### 5.7 Sediment Sampling

Sediments are being collected from wetland areas and drainage swales that are relatively dry. No wading or boating is required.

#### 5.8 Electrical Hazards

If using portable tools that are electrically powered, follow the safety precautions listed below:

- Check to see that electrical outlets used to supply power during field operations is
  of the three wire grounding type.
- Extension cords used for field operations should be of the three wire grounding type and designed for hard or extra-hard usage. This type of cord uses insulated wires within an inner insulated sleeve and will be marked S, ST, STO, SJ, SJO or SJTO.
- NEVER remove the ground plug blade to accommodate ungrounded outlets.
- Do not use extension cords as a substitute for fixed or permanent wiring. Do not run extension cords through openings in walls, ceilings or floors.
- Protect the cord from becoming damaged if the cord is run through doorways, windows or across pinch points.
- Examine extension and equipment cords and plugs prior to each use. Damaged cords with frayed insulation or exposed wiring and damaged plugs with missing ground blades MUST BE REMOVED from service immediately.
- All portable or temporary wiring which is used outdoors or in other potentially wet or damp locations must be connected to a circuit which is protected by a ground fault circuit interrupter (GFCI). GFCI's are available as permanently installed outlets, as plug-in adapters and as extension cord outlet boxes. DO NOT CONTINUE TO USE A PIECE OF EQUIPMENT OR EXTENSION CORD WHICH CAUSES A GFCI TO TRIP.

- When working in flammable atmospheres, be sure that the electrical equipment being used is approved for use in Class I, Division I atmospheres.
- Do not touch a victim who is still in contact with current. Separate the victim from
  the source using a dry, nonmetallic item such as a broom stick or cardboard box.
   Be sure your hands are dry and you are standing on a dry surface. Turn off the
  main electrical power switch and then begin rescue efforts.

# 6. Air Monitoring

### 6.1 Direct Reading Instruments

A photoionization detector (PID), such as a ThermoElectron Organic Vapor Monitor (OVM) equipped with a 10.0 ev, 10.2 ev or 10.6 ev lamp, will be used to screen the work area for volatile organic vapors during bedrock well installation. As a precaution, if the PID indicates sustained (15 minute) breathing zone vapor concentrations in excess of 25 units or more, respiratory protection, as described in Section 7.2 of this document, will be donned.

## 6.2 Personal Air Sampling

Personal air sampling will not be conducted by ENSR during the activities covered by this HASP.

## 6.3 Calibration and Recordkeeping

Equipment used by ENSR will be calibrated in accordance with the quality assurance plan and ENSR's standard operating procedures. A log of PID readings will be kept in the field notebook. Daily calibration information will also be recorded in the field notebook.

## 7. Personal Protective Equipment

Personal protective equipment (PPE) will be worn during these activities to prevent on-site personnel from being injured by the safety hazards posed by the site and/or the activities being performed. In addition, chemical protective clothing will be worn to prevent direct dermal contact with the site's chemical contaminants. The following table describes the PPE and chemical protective clothing to be worn for general site activities and for certain specific tasks.

## 7.1 Chemical Protective Clothing

PPE Item	Task 1	Task 2	Task 3
Hard Hat	<b>V</b>		
Steel Toed Safety Shoes	1		
Safety Glasses with Sideshields	1	1	1
Leather gloves	1		
Inner PVC/Outer Nitrile Gloves		1	1
Hearing Protection	1		

Task 1 - Bedrock Well Installation

Task 2 - Well Gauging/Groundwater Sampling

Task 3 - Surface Soil/Sediment Sampling

#### 7.2 Respiratory Protection

Although not likely, respiratory protection as described below will be required if worker breathing zone PID concentrations are sustained (15 minutes) above the action limit.

Task	Action Limit	Respiratory Protection
Installation of bedrock monitoring wells	25 units above background on the PID	Half mask respirator with organic vapor cartridges

Respiratory protection should also be donned if odors become objectionable at any time or if respiratory tract imitation is noticed.

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All employees who are expected to don respiratory protection must have successfully passed a qualitative or quantitative fit-test within the past year for the brand, model and size respirator they plan to don during the proposed activities.

## 7.3 Other Protective Equipment

The following additional safety items should be available at the site:

- Portable, hand-held eyewash bottles
- First aid kit

#### 8. Site Control

To prevent both exposure of unprotected personnel and migration of contamination due to tracking by personnel or equipment, work areas along with personal protective equipment requirements will be clearly identified.

#### 8.1 Designation of Zones

ENSR designates work areas or zones as suggested in the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," NIOSH/OSHA/USCG/EPA, November, 1985. They recommend the areas surrounding each of the work areas to be divided into three zones:

- · Exclusion or "hot" Zone
- Contamination Reduction Zone (CRZ)
- Support Zone

#### 8.1.1 Exclusion Zone

The exclusion zone will include the area that immediately surrounds the drilling activities. Exclusion zones are not required for non-intrusive sampling activities. This zone should be sufficiently large to protect unprotected personnel from contact with vapors or dusts that may arise from these operations as well as the physical hazards associated with the operation of heavy equipment. As a minimum, the exclusion zone should include the area scribed by the shadow of the mast of the drilling rig. Each exclusion zone will be demarcated by traffic cones or hazard tape. All personnel entering the exclusion zone must be trained in accordance with the requirements defined in Section 9.2 of this HASP and must wear the prescribed level of personal protective equipment.

## 8.1.2 Contamination Reduction Zone

The decontamination zone will be established adjacent to the exclusion zone. Personnel will remove contaminated gloves and other disposable items in this area and place them in a plastic bag until they can be properly disposed of.

#### 8.1.3 Support Zone

At this site the support zone will include the area outside of the exclusion zone.

### 8.2 Safety Practices

The following measures are designed to augment the specific health and safety guidelines provided in this plan.

- The "buddy system" will be used at all times by all field personnel. No one is to perform
  field work alone. Standby team member must be intimately familiar with the procedures for initiating an emergency response.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the
  probability of hand-to-mouth transfer and ingestion of materials is prohibited in the
  immediate work area and the decontamination zone.
- Smoking is prohibited in all work areas. Matches and lighters are not allowed in these areas.
- Hands and face must be thoroughly washed upon leaving the work area and before eating, drinking or any other activities.
- Beards or other facial hair that interfere with respirator fit are prohibited.
- The use of alcohol or illicit drugs is prohibited during the conduct of field operations.
- All equipment must be decontaminated or properly discarded before leaving the site in accordance with the project work plan.

#### 9. Decontamination

#### 9.1 Personal Decontamination

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Proper decontamination is required of all personnel before leaving the site. Decontamination will occur within the contamination reduction zone. Disposable PPE will be removed in the decontamination zone and placed in lined garbage bags.

If worn, respirators will be cleaned after each use with respirator wipe pads and will be stored in plastic bags after cleaning.

Regardless of the type of decontamination system required, a container of potable water and liquid soap should be made available so employees can wash their hands and face before leaving the site for lunch or for the day.

# 10. Medical Monitoring and Training Requirements

#### 10.1 Medical Monitoring

All personnel performing activities covered by this HASP must be active participants in a medical monitoring program that complies with 29 CFR 1910.120(f). Each individual must have completed an annual surveillance examination and/or an initial baseline examination within the last year prior to performing any work on the site covered by this HASP.

#### 10.2 Health and Safety Training

All personnel performing activities covered by this HASP must have completed the appropriate training requirements specified in 29 CFR 1910.120(e). Each individual must have completed an annual 8-hour refresher training course and/or initial 40-hour training course within the last year prior to performing any work on the sites covered by this HASP. Also, on-site managers and supervisors directly responsible for supervising individuals engaged in hazardous waste operations must have completed the specified 8-hour managers training course.

## 10.2.1 Pre-Entry Briefing

The SSO will conduct a pre-entry briefing before site activities begin. HASP receipt and acceptance sheets will be collected at this meeting. Short safety refresher meetings will be conducted, as needed, throughout the duration of the project. Attendance of the pre-entry meeting is mandatory and will be documented by the ENSR SSO. An attendance form is presented in Attachment B.

## 11. Emergency Response

OSHA defines emergency response as any "response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance." According to ENSR policy, ENSR personnel shall not participate in any emergency response where there are potential safety or health hazards (i.e., fire, explosion, or chemical exposure). ENSR response actions will be limited to evacuation and medical/first aid as described within this section below. As such this section is written to comply with the requirements of 29 CFR 1910.38 (a).

The basic elements of an emergency evacuation plan include:

- · employee training,
- · alarm systems,

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- · escape routes,
- · escape procedures,
- · critical operations or equipment,
- · rescue and medical duty assignments,
- · designation of responsible parties,
- · emergency reporting procedures and
- methods to account for all employees after evacuation.

#### 11.1 Employee Training

Employees must be instructed in the site-specific aspects of emergency evacuation. On-site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are changed.

## 11.2 Alarm Systems/Emergency Signals

An emergency communication system must be in effect at all sites. The most simple and effective emergency communication system in many situations will be direct verbal communications. Each site must be assessed at the time of initial site activity and periodically as the work progresses. Verbal communications must be supplemented anytime voices can not be clearly perceived above ambient noise levels (i.e., noise from heavy equipment; drilling rigs, backhoes, etc.) and anytime a clear line-of-sight can not be easily maintained amongst all ENSR personnel because of distance, terrain or other obstructions.

Verbal communications will be adequate to warn employees of hazards associated with the immediate work area. No telephone service is available at the site so field teams must be equipped with cellular phones. If two field teams are working in different areas of the site, the field teams should be able to communicate with each other.

#### 11.3 Escape Routes and Procedures

The escape route from the site will be via Enterprise Drive.

### 11.4 Rescue and Medical Duty Assignments

The phone numbers of the police and fire departments, ambulance service, local hospital, and ENSR representatives are provided in the emergency reference sheet. This sheet will be posted in the site vehicle.

In the event an injury or illness requires more than first aid treatment, the SSO will accompany the injured person to the medical facility and will remain with the person until release or admittance is determined. The escort will relay all appropriate medical information to the onsite project manager and the RHSM.

If the injured employee can be moved from the accident area, he or she will be brought to the CRZ where their PPE will be removed. If the person is suffering from a back or neck injury the person will not be moved and the requirements for decontamination do not apply. The SSO must familiarize the responding emergency personnel about the nature of the site and the injury. If the responder feels that the PPE can be cut away from the injured persons body, this will be done on-site. If this not feasible, decontamination will be performed after the injured person has been stabilized.

#### 11.5 Designation of Responsible Parties

The SSO is responsible for initiating emergency response. In the event the SSO can not fulfill this duty, the alternate SSO will take charge. All personnel on site are responsible for knowing the escape route from the site and where to assemble after evacuation.

#### 11.6 Employee Accounting Method

The SSO is responsible for identifying all ENSR personnel on-site at all times. On small, short duration jobs this can be done informally as long as accurate accounting is possible. On all other sites a formal log-in and log-out procedure must be implemented.

# 11.7 Accident Reporting and Investigation

Any incident (other than minor first aid treatment) resulting in injury, illness or property damage requires an accident investigation and report. The investigation should be conducted as soon as emergency conditions are under control. The purpose of the investigation is not to attribute blame but to determine the pertinent facts so that repeat or similar occurrences can be avoided. An ENSR accident investigation form is presented in Attachment C of this HASP. The injured ENSR employee's supervisor and the RHSM should be notified immediately of the injury. If a subcontractor employee is injured, they are required to notify the ENSR SSO. Once the incident is under control, the subcontractor will submit a copy of their company's accident investigation report to the ENSR SSO.

#### **EMERGENCY REFERENCES**

Ambulance:

911

Fire:

911

Police:

911

**Medical Services:** 

914-331-3131

Kingston Hospital 369 Broadway Kingston, NY

**Directions to Hospital:** 

Follow Route 9W to the ramp for Deleware

Avenue. Turn right onto Deleware Ave. Bear right onto Broadway. Hospital is about 4 miles from the

site.

On Site Telephone:

Phones must be brought to the site

**Underground Utility Location Service:** 

1-800-962-7962

#### **ENSR Project Representatives:**

ENSR/ACTON, MA

978-635-9500

-Kathleen Harvey (RHSM)

x 3325

ENSR/LANGHORNE, PA

215-757-4900

-Ron Carper (PM)

732-457-0500

ENSR/PISCATAWAY, NJ
-James Capasso (Site Manager)

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## Attachment A

Health and Safety Plan Receipt and Acceptance Form

# Health and Safety Plan Receipt and Acceptance Form

Preliminary Soil. Sediment and Groundwater Investigation at

Southwestern Parcel Ulster Township, New York

I have received a copy of the Health and Safety Plan prepared for the above-referenced site and activities. I have read and understood its contents and I agree that I will abide by its requirements.						
Name (Print)	·					
Signature	Date:					
Representing (Print)						

HASP for Preliminary Investigations Southwestern Parcel, TechCity Site Ulster Township, New York

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Company Name

February, 2000

#### **Attachment B**

Health and Safety Plan Pre-Entry Briefing Attendance Form

# Health and Safety Plan Pre-Entry Briefing Attendance Form

Preliminary Soil. Sediment and Groundwater Investigation

at

Southwestern Parcel Ulster Township, New York

Briefing Conducted By:

Date Performed:							
Market was the sale process of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of the sale of							
Printed Name	Signature 🖤 💃	Representing					
,							
•							

HASP for Preliminary Investigations Southwestern Parcel, TechCity Site Ulster Township, New York

February, 2000

## Attachment C

Supervisor's Accident Investigation Report Form

## SUPERVISOR'S ACCIDENT INVESTIGATION REPORT

Injured Employee	Job Title	
Home Office	Division/Department	
Date/Time of Accident		
Location of Accident		
Witnesses to the Accident		
Injury Incurred? Nature of Injury		
Engaged in What Task When Injured?		
Will Lost Time Occur? How Long?	Date Lost Time Began	
Were Other Persons Involved/Injured?		
How Did the Accident Occur?		
What Could Be Done to Prevent Recurrence of the	ne Accident?	
What Actions Have You Taken Thus Far to Preve		
Supervisor's Signature	Title	_ Date
Reviewer's Signature	Title	_ Date
M-4 16-0		

Note: If the space provided on this form is insufficient, provide additional information on a separate page and attach. The completed accident investigation report must submitted to the Regional Health and Safety Manager within two days of the occurrence of the accident.

**APPENDIX B** 

111

		4
		_

Project Number: 2523-001 Monitoring Well Construction Log Client: Besicorp Well Number BMW-1 Empire State Newsprint Sheet 1 of 3 Ulster Township, NY Equipment: Air Rotary Sampling Method: N/A Logged By: Valerie Stoltzfus Date Started: 1/11/00 Depth of Well: 130 feet Project Manager: Ron Carper Well Elevation: 98.83 ft (TOC) Drillers: Neal and Dean Date Finished: 1/12/00 Drilling Contractor: Nothnagle Drilling Depth Classification of Material Details (ft) 0.5' diameter steel casing 0' - 0.5' black coarse gravel 2 3 4 5 0.5' - 10' brown fine to medium sand 6 7 8 9 10  $\mathbf{n}$ 12 13 14 15 10' - 20' brown medium to coarse sand 19 20 21 22 23 24 25 26 27 28 29 30 31 20' - 45' gray clay 32 33 34 35 36 37 38 39 40 41 42 43

ENSR

Project Manager: Ron Carper

Project Number: 2523-001

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Logged By: Valerie Stoltzfus

Monitoring Well Construction Log

Well Number BMW-1

Sheet 2 of 3

Date Started: 1/11/00

Equipment: Air Rotary

Sampling Method: N/A Depth of Well: 130 feet

Drilling (	Contractor:	Nothnagle Drilling	Drillers: Neal and Dean	Date Finished: 1/12/00	Well Elevation : 98.83 ft (	roc)
Depth (ft)			Classification of M	aterial		Details
46 — 48 — 49 — 50 — 51 — 52 — 53 — 54 — 55 — 56 — 57 — 58 — 60 — 61 — 62			46' - 61' gray c	lay	,	0.5' diameter state of the casing of the casing to 61.7'
63 — 64 — 65 — 66 — 67 — 68 — 69 — 70 — 71 — 72 — 73 —						open hole
75 — 76 — 77 — 78 — 79 — 80 — 81 — 82 — 83 — 84 — 85 — 86 — 87 — 88 — 90			61' - 90' gray shale and	d siltstone		

; ,

Project Number: 2523-001

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Monitoring Well Construction Log

Well Number BMW-1

Sheet 3 of 3

Equipment: Air Rotary

Sampling Method: N/A

Project Manager: Ron Carper	Logged By: Valerie Stoltzfus	Date Started: 1/11/00	Depth of Well: 130 feet	
Orilling Contractor: Nothnagle Dri	lling Drillers: Neal and Dean	Date Finished: 1/12/00	Well Elevation : 98.83 ft	(TOC)
Depth				
(ft)	Classification of	Material	-	Details
				İ
91				
92				
93				
94				
95				
96			•	
97				1 1
98				}
99				
100				
101				
102				
103				
104				
105				
106				
107			•	}
108				
109	91' - 130' gray shale	and cilterana		
110		and stitistinge		open hole
112	•		•	1
113				1 1
114				1
115				
116				1
117			•	
118				
119				
120				
121				
122				1 1
123				1
124				
125				
126				
127				} }
129				

**ENSR** 

Project Number: 2523-001

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Monitoring Well Construction Log

Well Number BMW-2

Sheet 1 of 3

Equipment: Air Rotary
Sampling Method: N/A

Project Manager: Ron Carper | Logged By: Valerie Stoltzfus | Date Started: 1/12/00 | Depth of Well: 130 feet |
Drilling Contractor: Nothinagle Drilling | Drillers: Neal and Dean | Date Finished: 1/13/00 | Well Elevation: 100.85 ft (TOC)

Depth (ft)	Classification of Material	Details
1 _	0' - 0.5' brown loam	
2 _		
3		
4		
5 _	·	
6		
7_		
8 _		
9 _		
10	0.5' - 20' brown fine to coarse sand	
] 11 ]	·	
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		133.1 1997 P
22		0.5' diameter
23		0.5' diameter
24	· ·	steel casing
25 _		
26	· '	
27 28		
29 -		
30	i	steel casing
31 -		
32	20' - 45' brown clay	
33	20 - 45 blown clay	
34		
35 -		
36	1	
37		
38 -		
39 -		
40 -		
38		
42 -		
43 -		削欄
44 -		
45		
	<u> </u>	

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Monitoring Weil Construction Log

Well Number BMW-2

Sheet 2 of 3

Equipment: Air Rotary

Sampling Method: N/A Depth of Well: 130 feet

Logged By: Valerie Stoltzfus
Drillers: Neal and Dean Date Started: 1/12/00 Project Manager: Ron Carper Drilling Contractor: Nothnagle Drilling Date Finished: 1/13/00 Well Elevation: 100.85 ft (TOC)

	Depth (ft)	Classification of Material	Details
The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon	46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	46' - 90' brown clay	0.5' diameter steel casing
And the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s	63 — 64 — 65 — 66 — 67 — 68 — 70 — 71 — 72 — 73 — 74 — 75 — 77 — 78 — 80 — 81 — 82 — 83 — 84 — 85 — 88 — 90 — 90 — 90 — 90 — 90 — 90 — 90		0.5' diameter steel casing

Client: Besicorp

**Empire State Newsprint** 

Ulster Township, NY

Monitoring Well Construction Log

Well Number BMW-2

Sheet 3 of 3

Equipment: Air Rotary Sampling Method: N/A

i					·	Sampling Method: N/A		i
Project	Manager:	Ron Carper		Logged By: Valerie Stoltzfus	Date Started: 1/12/00	Depth of Well: 130 feet		
Drilling	Contractor	Nothnagle	Drilling	Drillers: Neal and Dean	Date Finished: 1/13/00	Well Elevation: 100.85 ft	(TOC)	- 1
Depth (ft)				Classification of M	faterial		Details	
91 92				90' - 92' brown	clay			
93 94 95 96 97 98 99				92' - 100' gray weath			0.5' diameter steel casing to 98'	PORTE STANSFORM STANSFORM
100 101 102 103 104 105 106 107 108								
110 111 112 113 114 115				100' - 130' gray shale a	nd siltstone		open hole	
117 118 119 120 121 122								
123 124 125 126 127 128 129 130		•					·	

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Monitoring Well Construction Log

Well Number BMW-3

Sheet | l of 3

Equipment: Air Rotary Sampling Method: N/A

Depth of Well: 130 feet

Logged By: Valerie Stoltzfus Project Manager: Ron Carper Date Started: 1/13/00 Drilling Contractor: Nothnagle Drilling Drillers: Neal and Dean Date Finished: 1/14/00 Well Elevation: 100.28 ft (TOC)

- 1	Depth (ft)	Classification of Material					
,	1	0' - 0.5' brown loam					
	2	0.5' - 20' brown fine to coarse sand	proximate promove the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s				
	17	20° - 45° gray clay	0.5' diameter steel casing				

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Monitoring Well Construction Log

Well Number BMW-3

Sheet 2 of 3

Equipment: Air Rotary

Sampling Method: N/A Depth of Well: 130 feet Project Manager: Ron Carper
Prilling Contractor: Nothnagle Drilling Logged By: Valerie Stoltzfus
Drillers: Neal and Dean Date Started: 1/13/00 Date Finished: 1/14/00 Well Elevation: 100.28 ft (TOC)

Depth (ft)	Classification of Material		
46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62 63 64 65	46' - 67.5' gray clay	0.5' diameter steel casing to 67.5'	alen erikarion en en en erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion erikarion er
66 — 67 — 68 — 70 — 71 — 72 —			MAZAKA MAZACHI
74	67.5' - 90' gray shale and sittstone	open hole	
, 89 90			

Client: Besicorp

Site: Empire State Newsprint

Ulster Township, NY

Monitoring Well Construction Log

Well Number BMW-3

Sheet 3 of 3

Equipment: Air Rotary

Sampling Method: N/A Depth of Well: 130 feet

Logged By: Valerie Stoltzfus
Drillers: Neal and Dean Project Manager: Ron Carper
Drilling Contractor: Nothnagle Drilling Date Started: 1/13/00 Well Elevation: 100.28 ft (TOC) Date Finished: 1/14/00

	Depth (ft)	Classification of Material	Details	
	97			
!	108 — 109 — 110 — 111 — 112 — 113 — 114 — 115 — 116 — 117 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 — 118 —	91' - 130' gray shale and siltstone	open hole	
:	119 — 120 — 121 — 122 — 123 — 124			

**APPENDIX C** 

		<b>J</b>
		Ĵ

Client: Besicorp

Boring Number GT-1

Soil Boring Log

Site: Empire State Newsprint

Ulster County, NY

Sheet 1 of I

Equipment:

Gcoprobe Sampling Method 4' Macrocore
Depth of Boring: 16.0 feet

				Sampling Method 4 Waciocole				
		er: Ron Carpe						
Drilling (	Contra	ctor: Maxim	Driller: Rudy \	icira   Date Finished: 1/13/00   Water Level: ~10 feet				
Depth (ft)				Classification of Material (Unified System)				
		moist	dark yellowish brown (10YR 4/4)	0.1' organic clay loam; fibrous texture; roots, grass, leaves (fragments); moist (PT)				
1 _		moist	dark yellowish brown (10YR 4/4)					
2 _	79	dry	light yellowish brown (10YR 6/4)	1.5' clay, grading into silty clay; firm and dry (CL-ML)				
3 4		moist	very dark grayish brown (10YR 3	0.7' gravelly sand; medium to coarse; poorly graded; loose, running sands; moist (SP)				
5		moist	very dark grayish brown (10YR 3	/2) 1.4' gravelly sand; medium to coarse; coarsening downward; poorty graded; loose, running sands; moist (SP)				
6 .	77	moist	dark yellowish brown (10YR 4/6)	0.8' silty clay; moist (CL)				
7 _		moist to wet	dark gray (10YR 4/1)	0.8' clay; high plasticity; moist to saturated fat clay (CH)				
9 .		moist	very dark grayish brown (10YR 3	1.5' silty sand; fine to coarse; fairly well graded; moist (SW)				
10	88	moist to wet	brown (5YR 5/2) dark gray (10YR 4/1) laminuc	2.0' clay; high plasticity; varved; moist to saturated fat clay (CH)				
11 .	-							
12	1_							
13		moist to wet	brown (5YR 5/2) dark gray (10YR 4/1) laminac	4.0' clay; high plasticity; varved; moist to saturated fat clay (CH)				
14	100							
15								
	1	i	I	1				

24' - 28' interval: no recovery

28' - 32' interval; no recovery

Project Number: 2523-001 Client: Besicorp

Site: Empire State Newsprint Ulster County, NY

Soil Boring Log

Boring Number GT-2

bire State Newsprint
Sheet | 1 of 2

Equipment: Geoprobe
Sampling Method: 4 Macrocore
| Logged By: Valerie Stoltzfus | Date Started: 1/12/00 | Depth of Boring: 52.0 feet
| Driller: Rudy Vicina | Date Finished: 1/12/00 | Water Level: -10 feet

roject M Drilling (	anage	er: Ron Carper		Logged By: Driller: Ru	Valerie Stoltzfüs	Date Started: 1/12/00	Depth of Boring:	52.0 feet
I grants			<u> </u>	Driver: Ru	Uy VICIFA	Date Finished: 1/12/00	Water Level:	~10 feet
Depth (ft) System) Color (Munsell System)			Classification of Material (Unified System)					
		moist	light olive g		0.5' organic silty	clay loam; fibrous texture;	roots, grass, leaves (	fragments); moist (PT-CL)
1 1		moist	grayish brov	vn (2.5Y 5/2)	0.5' silty sand; m	edium to coarse; poorly gra	ided; moist (SM)	
3 -	31	moist	grayish brov	yish brown (2.5Y 5/2)  0.25' gravelly sand; coarse to very coarse; poorly graded; loose, running sands; moist (SP)				
4-1		maiat		- (2 (1) (2)	0.36			
5	1	moist moist		vn (2.5Y 5/2) brown (2.5Y 4/2)	0.25' gravelly sai	nd; coarse to very coarse; p m to coarse; poorly graded;	oorly graded; toose,	running sands; moist (SP)
1			dark gravish	brown (2.5Y 4/2)	2 1' gravelly sand	d; coarse to very coarse; po	orly graded loose o	inning sands: moist (SP)
6 -	75	,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		numing susteen, motor (4s )
٦						•		
8		wet	dark grayish	brown (2.5Y 4/2)	0.15' sand; medi	um to coarse; poorly grades	l; loose, running san	s; wet (SP)
9 -							•	• •
10	4							
11								
12								
13		moist to wet	brown (7.5Y	R 5/2)	3.5' clay; bigh pt	asticity; moist to saturated	fat clay (CH)	
٦								
14	88							
15								
16		wet	brown (7.5Y	R 5/2)	2.0' clay; high of	asticity; wet to saturated far	clay (CH)	
17				• •			· / \/	
18	50							
19		İ						
20						_		
21		wet	dark gray (7.	5 YR 4/0)	1.7' clay; high pla	asticity; wet to saturated fa	clay (CH)	
22	42	ĺ						
7	-							
23	- 1							
24	$\dashv$							
25								
26	0							
		L						
27	ļ	1				•		

Project Number: 2523-001 Client: Besicorp

Site: Empire State Newsprint Ulster County, NY

Soil Boring Log

Boring Number GT-2

Sheet 2 of 2

Equipment:

Geoprobe

Sampling Method: 4' Macrocore
Depth of Boring: 52.0 feet

				Sampling Method: 4 Macrocore
		r: Ron Ca		By: Valerie Stoltzfus   Date Started: 1/12/00   Depth of Boring: 52.0 feet
rilling (	Contra	ctor: Max	im Driller:	Rudy Vieira   Date Finished: 1/12/00   Water Level: ~10 feet
Depth (ft)	% Recovery	Moisture	Color (Munsell System)	Classification of Material (Unified System)
29	_	wet	dark gray (7.5 YR 4/0)	3.2' clay; high plasticity; wet to saturated fat clay (CH)
30 _	79			
31 _				
32				
33		wet	dark gray (7.5 YR 4/0)	1.5' clay; high plasticity; wet to saturated fat clay (CH)
34 _	100	moist	dark gray (7.5 YR 4/0)	2.5' clay; moderate plasticity; dense; firm and moist (CL)
35 _				
36				
		wet	dark gray (7.5 YR 4/0)	0.4' sandy clay; poorly graded; some line to medium sand; wet (CL)
37	1 1	wet	dark gray (7.5 YR 4/0)	0.2' sandy clay; poorly graded; some medium to coarse sand, small percentage of gravel; wet (CL)
_		wet	dark gray (7.5 YR 4/0)	1.4' clay; high plasticity; wet to saturated fat clay (CH)
<b>38</b> _	100	wet	dark gray (7.5 YR 4/0) wit	h 0.5' clay; high plasticity; wet (CH)
			~0.04' lens reddish brown	
39 _	] ]		(5YR 5/3)	10 m L. Victoria de comunicación de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constant
		wet	dark gray (7.5 YR 4/0)	0.8' clay; high plasticity; wet to saturated fat clay (CH)
40	1	moist	dark gray (7.5 YR 4/0)	0.7' clay; moderate plasticity; dense; firm and moist (CL) 3.0' clay; high plasticity; wet (CH)
41 - 42	100	wet	dark gray (7.5 YR 4/0)	3.0 clay, togh plasmetry, wer (err)
43	1.00			
44	1	wet	dark gray (7.5 YR 4/0)	1.0 silty sand; very fine to fine; poorly graded; wet (SM)
45		wet	dark gray (7.5 YR 4/0)	1.0' silty sand; very fine to fine sand grading into clayey silt; wet (SM-ML)
45 _	100	wet	dark gray (7.5 YR 4/0)	2.5' clay; high plasticity; wet (CH)
46 47	1 '**			
· -	1			
48		wet	dark gray (7.5 YR 4/0)	0.5' silty sand; very fine to fine; poorly graded; wet (SM)
49		wet	dark gray (7.5 YR 4/0)	1.0' sand; medium to coarse; poorly graded; wet (SP)
<u>.</u> .	1	wet	dark gray (7.5 YR 4/0)	0.5' gravelly sand; medium to coarse; poorly graded; wet (SP)
50	100		black (2.5Y 2/0)	0.3' gravelly sand; very coarse; poorly graded; wet (SP)
	1	wet	dark gray (7.5 YR 4/0)	0.5' silty gravel; poorly graded gravel-sand-silt mixture; wet (GM) 1.7' gravelty sand; very coarse; poorly graded; wet (SP)
. 51 -	1	wet	dark gray (7.5 YR 4/0)	1.7 graveny sand; very coarse; poonty gramen; wer (SF)
• 57	I .	1	i .	1

52' - 56' interval: no recovery

ENSR

Project Number: 2523-001

Client: Besicorp

Site: Empire State Newsprint

Ulster County, NY

Soil Boring Log

Boring Number GT-3

Sheet 1 of 2

Equipment: Sampling Method:

Geoprobe
4' Macrocore

Project Manager: Ron Carper Logged By: Valerie Stoltzfus Date Started: 1/17/00 Depth of Boring: 61.0 feet Drilling Contractor: Maxim Driller: Rudy Vicina Date Finished: 1/17/00 Water Level: ~10 feet % Recovery Moisture Depth Color (Munsell System) Classification of Material (Unified System) **(ft)** dry very dark grayish brown (10YR 3/2) 1.2' silty loam; roots; firm and dry (ML) dry light yellowish brown (2.5Y 6/4) 0.5' silty clay loam; firm and dry (CL) 75 dry fight yellowish brown (2.5Y 6/4) 2 0.4' silty foam; firm and dry (ML) dry dark grayish brown (10YR 4/2) 0.9' sand; fine to medium; poorly graded; dry (SP) 3 dark grayish brown (10YR 4/2) dry 0.4' silty sand; very fine to fine; poorly graded; dry (SM) đлу 5 dark grayish brown (10YR 4/2) 0.5' sand; medium to coarse; poorly graded; dry (SP) 1.8' gravelly sand; medium to very coarse; poorly graded, loose, running sands; dry to moist (SP) dry to moist dark grayish brown (10YR 4/2) 69 6 7 wet 0.8' sand; medium to coarse; poorly graded; wet (SP) 9 18 (O Ħ 12 moist dark brown (7.5YR 4/2) 0.2' clay; high plasticity; varved; moist (CH) 13 olive (5Y 4/3) laminae wct dark brown (7.5YR 4/2) 2.8' clay; high plasticity; varved; moist to saturated fat clay (CH) 14 dark gray (10YR 4/1) laminae 15 moist dark brown (7.5YR 4/2) 0.5' clay; high plasticity; varved; moist (CH) 16 dark gray (10YR 4/1) laminac 17 18 skipped interval 19 20 21 22 skipped interval 23 24 25 26 0 27 28 29 skipped interval



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Project Number: 2523-001

Client: Besicorp

Site: Empire State Newsprint Ulster County, NY

Soil Boring Log

Boring Number GT-3

Sheet 2 of 2

Equipment: Geoprobe
Sampling Method: 2' and 4' Macrocore

					.,	Sampling Method:	2' and 4' Macrocore	
roject N	lanage	r. Ron Ca	rper Logged B	y: Valerie Stoltzfus		Depth of Boring:	61.0 feet ~10 feet	
		csor: Max		Rudy Vicina	Date Finished: 1/17/00	Water Level:		
Ocpth (ft)	% Recovery	Moisture	Color (Munsell System)		Classification of Material (Unified System)			
31	80	wei	dark gray (10YR 4/1) with ~0.03' lens reddish brown (5YR 5/3)	1.6° clay; high pla	sticity; wet (CH)			
32								
33 _ 34		skipped interval						
35		skipped interval						
36		mu.va.				<del></del>	· · · · · · · · · · · · · · · · · · ·	
37		skipped interval			•			
38		wet	dark brown (7.5YR 4/2)	1.7' clay; high pla	sticity; varved; wet to satura	ted fat clay (CH)		
39 _	83		gray (10YR 5/1) laminac					
40	-							
41 -	1							
42 -		skipped interval						
44								
45 _		wet	dark brown (7.5YR 4/2) gray (10YR 5/1) laminae		sticity; varved; wet; grading		UL)	
46	94	wet	gray (10YR 5/1)	2.3' silty clay; lov	v to medium plasticity; wet (	(CL)		
47		•			•			
48	<u> </u>	wel	dark gray (10YR 4/1)	0.4' clayey sand;	very fine to fine; wet (SC)			
49		wet	dark gray (10YR 4/I)	2.0' clayey sand;	very fine to line; wet (SC)			
50	50							
51	]							
52		,	desk emy (10VP 4/1)	A (V chaves sand	very line to line; wet (SC) w	ith -0 2' clay lenres	at \$4.5' and \$5.7' (CH)	
53	1	wet	dark gray (10YR 4/1)	The chayey sand;	very time to rate; wer (3C) w	TILL TULE GLAY ICUSCS	acond and 22.7 (VII)	
54	100			1				
55	1			}				
56	<del> </del>	, , , , , , , , , , , , , , , , , , ,	dark gray (10YR 4/1)	O P cand were Go	ne to fine; poorly graded; we	(SP)		
57	1	wet	umr gray (101 K 4/1)	v.i sanu, very itt	ac to mic, poorty graded, we	. (121.)		
58	2							
59	1							
60	12	we ⁴	dark gray (IOYR 4/1)	O 2' clave high at	sticity; saturated fat clay			
61	17	wet	unik gray (IUTK 4/1)	J.A. Clay, night pla	Purity, seintend fer city			

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APPENDIX D



### ONE RESDARCH CIRCLE WAVERLY, NY 14802-1532 FAX (607) 565-4082 TELEPHONE (607) 665-9500

LAB SAMPLE ID

1144872-2

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

DATE 26-JAN-2000

SAMPLE SOURCE	BRCTCOPP			
MIDITO	MW-2408			
DESORPTION	GRAB			
SAMPLED ON	13-JAN-00	00:00	by	CLIENT
DATE BECEWED	17-JAN-00	09:56	-	
, - C. P.O. NO.	N/A			

Analysis Parformed	Reault	Uni ts_	Potection Limit	Pate Analyzed	Hethod	Notebook Reference
Cyanide, Total	U	mg/L	0.01	Z0-JAN-00	EPA 335.3	00-013-1
Atuninum	2,46	mg/l	0.075	25-JAN-00	EPA 6010	99-227-05
Antimony	u	mg/l	0.050	25-JAH-00	EPA 6010	99-227-05
Ársonic	0,003	mg/l	0.002	20-JAN-00	EPA 7062	97-198-44
Barium	0.057	mg/l	0_016	25-JAN-00	EPA 6010	99-227-05
Beryllium	U	mg/l	0.002	25-JAK-00	EPA 6010	99-227-05
Codnium	U	#g/l	0,0050	25-JAN-00	EPA 6010	99-227-05
Calcium	75.6	mg/l	0.500	00-KAL-25	EPA 6010	99-227-05
Chromities	บ	mg/l	0.010	25-JAN-00	EPA 6010	99-227-05
Cobalt	U	mg/l	0.010	00-NAL-55	EPA 6010	99-227-05
Copper	U	mg/l	0.017	25-JAN-00	EPA 6010	99-227-05
Iron	11.7	mg/l	0.040	25-JAN-00	EPA 6010	99-227-05
Leed	0.004	mg/l	0.002	26-JAN-00	EPA 7421	98-195-15
Hagnes (Life	11.1	mg/l	0.500	25-JAN-00	EPA 6010	99-227-05
Henganese	3.21	mg/l	0.005	25-JAN-00	EPA 6010	99-227-05
Mercury	U	mg/l	0.0002	00-NAL-81	EPA 7470	98-126-63
Mickel	ŭ	mg/l	0,012	25-JAN-00	EPA 6010	99-227-05
Potessium	8.45	mg/1	0.500	25-JAN-00	EPA 6010	99-227-05
	บ	mg/t	0.002	00-MAL-75	EPA 7742	96-080-67
Selenium		mg/l	0.010	25-JAN-00		99-227-05
Silver	บ		0.200	25-JAN-00		99-227-03
Sodium	89.3	mg/l	0.200	LJ-VAR-00	PLY DO IA	77 LLT V2

Page 1

Approved by: NJ 73168 **EPA NY 00033** NY 10252 PA 68160 Lab Director = mloograms per liter (equivalent to parts per billion) ₽g/L < = less than ND or U = None Detected KEY: = milligrame per kilogram (equivalent to parte per million) = milligrams per liter (equivalent to parts per million) mg/kg mg/L = result estimated below the quantitation limit = analyte was detected in the method or trip blank

The information in this report is securate to the best of our knowledge and ability. In no event shall our flability exceed the cost of these services. Your samples will be discarded after 14 days unless we are adviced otherwise.

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### ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532 TELEPHONE (607) 865-3500 FAX (807) 565-4083

LAB SAMPLE 10 :L44872-2

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

DATE 26-JAN-2000

BAMPLE SOURCE : 12 **BESICORP** ORIGIN MW-2409 OBECHIPTION GRAB SAMPLED ON Date HECEIVED

13-JAN-00 00:00 by CLIENT 17-JAN-00 09:56

N/A

nelysis Performed	Repult	Units	Detection Limit	Date Analyzed	Hethod	Notebook Reference
hellfun	U	mg/l	0.001	26-JAN-00	EPA 7841	98-202-8
innedium	บ	mg/l	0.010	25-JAN-00	EPA 6010	99-227-05
ine	0.023	mg/l	0_020	25-JAN-00	EPA 6010	99-227-05
PA 8260						
laromethane	U	ug/t	5	19-JAN-00	EPA 8260	99-215-06
inyl chlorido	U	ug/l	2	19-JAN-00	EPA 8260	99-215-06
loroethane	บ	ug/l	2 5 5 5	19-JAN-00	EPA 8260	99-215-06
ononethene	v	ug/t	5	19-JAN-00	EPA 8260	99-215-06
,1-Dichloroethena	บ	ug/l	5	19- JAN-00	EPA 8260	99-215-06
etone	υ	ug/l	25	19-JAN-00	EPA 8260	99-215-06
arbon disulfide	ีย	ug/l	5 5 5 5 25	19-JAN-00	EPA 8260	99-215-06
ethylone chloride	U	ug/l	3	19-JAN-00	EPA 8260	99-215-06
rans-1,2-Dichloroethene	U	ug/L	5	19-JAN-00	EPA 8260	99-213-06
, 1-Dichloroethane	U	ug/t	5	19-JAN-00	EPA 8260	99-215-06
is-1,2-Dichlorosthene	U	ug/t	5	19-JAN-00	EPA 8260	99-215-06
ethyl ethyl ketone (2-Butenone)	U	ug/L	25	19-JAN-00	EPA 8260	99-215-06
hluroform	U	υg/(	5 5 5	19-Jan-00	EPA 8260	99-215-06
,1,1-Trichloroethore	U	ug/t	5	19-JAN-00	EPA 8260	99-215-06
arbon tetrachloride	U	ug/l		19-JAN-00	EPA 8260	99-215-06
enzone	U	ug/l	0.7	19-JAN-00	EPA 8260	99-215-06
,2-Dichloroethane	V	ug/l	5	19-JAK-0D	EPA 8260	99-213-06
richiorcethone	IJ	ug/l	5	19-JAN-00	<b>ZPA 8260</b>	99-215-06
,2-Dichloropropana	ช	ug/l	5 5	19-JAN-00	EPA 8260	99-215-06
romodichi oromethene	u	ug/t	5	19-JAN-00	EPA 8260	99-215-06
is-1,3-Dichlaropropene	Ü	Ug/L	5	19-JAN-00	EPA 8260	99-215-06
thyi isobutyi ketone	U	ug/t	10	19-JAN-08	EPA 8260	99-215-06
luene	Ü	ug/l	<b>Š</b>	19-JAN-00	EPA 8260	99-215-06
rana-1,3-Dichloropropene	U	บg/l	3 5	19-JAN-00	EPA 8260	99-215-06
1.2-Trichtoroethane	บ	ug/l	5	19-JAN-00	EPA 8260	99-215-06
etrachloroothane	ũ	us/l	5	19-JAN-00	EPA 8260	99-215-06
Nexanone	Ü	ug/l	5 10	19-JAN-00	EPA 8260	99-215-06
ibromochi oromethene	นั	ug/l	5	19-JAN-00	EPA 8260	99-215-06
hlorobenzene	ŭ	ug/l	Š	19-JAN-00	EPA 8260	99-215-06
thylbonzene	ŭ	ug/l	5	19-JAN-00	EPA 8260	99-215-06
-Xylena/m-Xylene	Ü	ug/l	5	19-JAN-00	EPA 8260	99-215-06
-Xylene	ŭ	ug/l	5	19-JAN-00	EPA 8260	99-215-060
tyrene	บั	ug/l	5	19-JAN-00	EPA 8260	99-215-066

Page 2

QC	fe	NY 10252	NJ 73168	PA 68180	EPA NY 00033	Арр	roved by:	Lab Director	
KEY:	ND or U mg/L B	_	por liter (eq	•	on than rto per million) or trip blank	mg/kg =	= milligrams per kilog	or (equivalent to parts p gram (equivalent to par low the quantitation lim	ts per million)

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

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# ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582 TELEPHONE (607) 565-3500 FAX (607) 565-4083

OATE 26-JAN-2000

LAB SAMPLE 10

:L44872-2

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 DATERECEIVED BESICORP

SAMPLE COURCE

DESCRIPTION

GRAB

13-JAN-00 00:00 by CLIENT

17-JAN-00 09:56

N/A

Analysis Performed	Result	Vni ts	Detection Limit	Date Analyzed	Method	Notebook Reference
Brompform 1,1,2,2-Tetrachloroethane	U U	ug/l ug/l	5 5	00-KAL-91 00-KAL-91	EPA 8260 EPA 8260	99-215-0663 99-215-0663
Library Search Compounds:	Results Units	Qual	Retention Time			
Burrogata Recovery: Dibromof(woromethame	98	x				99-215-0663
ToluenerdB 4-Bronofluorobenzane	98 99	X X				99-215-0663 99-215-0663
EPA 8270		·				
B(s(2-chioroethylether)	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
henol	Ū	ug/t	5	18-JAN-00	EPA 8270	98-051-1009
2-Chlorophenol	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
1,3-Dichtorobenzene	U	ug/l	5	18-JAH-00	EPA 8270	98-051-1009
1.4-Dichlorobenzens	บ	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
1,2-Dichlorobenzene	U .	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
Bia(2-chloroisopropylether)	u	Ug/l	5	18-JAK-00	EPA 8270	98-051-1009
?-Kethylphenol	ជ	ug/l	Ş	18-JAN-00	EPA 8270	98-051-1009
exachtoroothone	V	ug/l	2	18-JAH-00	EPA 8270	98-051-1009
N-Hitrosodi-X-propylanine	ប	Ug/l	5	18-JAN-00	EPA 8270	98-051-1009
3-Nethylphenol/4-Nethylphenol	U	ug/l	5	18-JAN-00	EPA 6270	98-051-1009
Ni trobenzene	U	ug/l	2	18-JAN-00	EPA 8270	98-051-1009
I sophorone	U	ug/l	<u> </u>	18-JAN-00	EPA 8270	98-051-1009
2-Nitrophenol	u	ug/t	2	18-JAH-00	EPA 8270	98-051-1009
2,4-Dimethylphenol	υ	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
Wis(Z-chloroethoxymethane)	ט	ug/L	<u>5</u>	18-JAN-00	EPA 8270	98-051-1009
2,4-01chiorophenol	υ	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
1,2,4-Trichlorobenzene	ម	บฐ/ไ	5	18-JAN-00	EPA 8270	98-051-1009
Naphthaleno :	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
4-Chloroenfline	U	ug/l	11	18-JAN-00	EPA 8270	98-051-1009
Rexachlorobutadiene	υ	ug/l	5 .	18-JAN-00	EPA 8270	98-051-1009
4-Chlora-3-methylphenol	U	∪g/l	11	18-JAN-00	EPA 8270	98-051-1009
2-Hethylnephthalene	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
Kexachlorocyclopontadione	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009
2,4,6-Trichlorophenol	ប	บศ/โ	5	18-JAN-00	EPA 8270	98-051-1009
2,4,5-Trichlorophenol	Ų	ug/t	5 5	18-JAN-00	EPA 8270	98-051-1009
2-Chloronaphthaiene	Ų	ug/t	5	18-JAX-00	EPA 8270	98-051-1009
2-Hitroaniline	ช	ug/l	21 .	18-JAN-00	EPA 8270	98-051-1009

Page 3

ac ()	f-	NY 10252	NJ 73188	PA 88180	EPA NY 00033	Approved by: Leb Director
KEY:	mg/L	<ul> <li>None Deto</li> <li>milligrams</li> <li>analyte wa</li> </ul>	per ilter (eq	ulvalant to pa	ve than irts par million) or trip blank	mg/kg = micrograms per liter (equivalent to parts per billion)  mg/kg = milligrams per kilogram (equivalent to parts per million)  J = result estimated below the quantitation limit

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## ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532 TELEPHONE (607) 565-3500 FAX (607) 586-4083

LAB SAMPLE ID : L44872-2

DATE 26-JAN-2000

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 

Analysis Performed	Resul t	Unita	Detection Limit	Pate Analyzed	Mathod	Notebook Reference
Dimothyl phthalate	V	ug/l	5 5	18-JAN-00	EPA 8270	98-051-10097
Acenephthylene	U	Ug/l	5	18-JAN-00	EPA 8270	98-051-10097
2,6-Dinitrotoluene	υ	ug/l	S	18-JAN-00	EPA 8270	98-051-10097
3-Witrosniline	U	ug/l	21	18-JAN-00	EPA 8270	98-051-10097
Aceneph thene	ប	va/l	5	18-JAN-00	EPA 8270	98-031-10097
2,4-Dinftrophenol	U	บฮ/โ	21	18-JAN-00	EPA 6270	98-051-10097
Dibenzofuren	U	Ug/l	5	18-JAN-00	EPA 8270	98-051-10097
2,4-Dinitrotoluena	บ	ug/l	5	18-JAN-00	EPA 8270	98-051-10097
4-H1trophenol	ថ	ug/l	21	18-JAN-00	EPA 8270	98-051-10097
Disthyl phtholate	U	Ug/t	5	18-JAN-00	EPA 8270	98-051-10097
Fluorene	นั	ug/l	5	18-JAH-00	EPA 8270	98-051-10097
4-Chiarophenylphenylether	บ	ua/l	. 5	18-JAN-00	EPA 8270	98-051-10097
4-Nitroaniline	บั	บัติ/โ	21	16-JAH-00	EPA 8270	98-051-10097
2-Methyl-4,6-dinitrophenoi	. ŭ	úg/l	21	18-JAN-00	EPA B270	98-051-10097
N-X (tropodiphenylamine	ŭ	ug/l	Š'	00-KAL-81	EPA 8270	98-051-10097
4-Bromophorrylphenylethor	ũ	ug/l	<u> </u>	18-JAK-00	EPA 8270	98-051-10097
Hexach Lorobanzone	น้	ug/l	Š	18-JAN-00	EPA 8270	98-051-10097
Pentechierophenol	บั	Ug/(	21	15-JAN-00	EPA 8270	98-051-10097
Phonenthrone	ŭ	ug/l	5	00-MAL-51	EPA 8270	98-051-10097
Anthracene	ĭi	ug/t	Š	18-JAN-00	EPA 8270	98-051-10097
Carbazole	บั	ug/l	Ś	18-JAN-00	EPA B270	
Di-n-butyl phthelate	บั	ug/l	É	18- JAN-00	EPA 8270	98-051-10097
Fluoranthone	Ĭ,	ug/t	ź	18-JAH-00		98-051-10097
Pyrenė	Ü	ug/l	ź		EPA 8270	98-051-10097
Butylbenzyl phthalate	Ü		2	18-JAN-00	EPA 8270	98-051-10097
	•	ug/l	5	18-JAN-00	EPA 8270	98-051-10097
Benzo(a)enthracene	บ	ug/l	3	18-JAN-00	EPA 8270	98-051-10097
5,3-Dichlarobenzidine	Ų	ug/L	<u>1</u> 1	18-JAN-00	EPA 8270	98-051-10097
Chrysene	Ų	ug/l	<u>5</u>	18-JAK-00	EPA 8270	98-051-10097
11x-2-othylhoxyl phthalato	U	ug/L	5	18-JAN-00	EPA 8270	98-051-10097
f-n-octyl phthelate	V	ug/L	5	18-JAN-00	EPA 8270	98-051-10097
Benzo(b)fluoranthene	Ù	ug/t	5	18-JAN-00	EPA 8270	98-851-10097
Benzo(k) fluoranthene	บ	<b>ug/</b> {	5	18-JAN-00	EPA 8270	98-051-10097
snizo(e)pyrene	u	Ug/L	5	18-JAK-00	EPA 8270	98-051-10097
Indeno(1,2,3-od)pyrene	u	ug/l	5	00-XAL-81	EPA 8270	98-051-10097
Dibenzo(a,h)anthracene	U	ug/L	5	00-WAL-81	EPA 8270	98-051-10097
Benzo(g,h,i)perylane	U	ug/t	5	00-KAL-81	EPA 8270	98-051-10097
Extraction Informations				00-KAL-86		99-211-1

Page 4

ac	74	NY 10252 NJ	73168 PA 8818	0 EPA NY 00033	Approved by: for Ish Director
KEY:	ND or U mg/L B	<ul> <li>None Detected</li> <li>mittigrame per</li> <li>analyte was de</li> </ul>	Ilter (equivalent to	toes then per million) perte per million) pod or trip blank	ug/L = micrograms per liter (equivalent to parts per billion)  mg/kg = milligrams per kilogram (equivalent to parts per million)  = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services Your samples will be discarded after 14 days unless we are advised otherwise.



## ONE RESEARCH CIRCLE WAVERLY, NY 14692-1532 TELEPHONE (607) 585-8600 FAX (607) 565-4083

DATE :26-JAN-2000

:L44872-2

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

LAB SAMPLE ID

DESCRIPTION: SAMPLED COM DATE RECEIVED	BESICORP MW-2405 GRAB 13-JAN-00 17-JAN-00 N/A	рУ	CLIENT	
(1933) CANADA STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STAT	177.65	 		_

Analysis Parformed	Resu	lt	Units	Detect Limit	fon	Date Analyzod	Nethod	Notebook Reference
Library Search Compounds:		Results	Units	Qual	Retention Time			
Unknewn Unknewn	5 61	ug/l ug/l	18 1	9.9 12.66				
Surrogate Recovery: Tarphemyl-d14 2-Fluorophonol Phenol-d5 2,4,6-Tribromophenol Hitrobenzene-d5 2-Fluorobiphenyl	68 39 29 70 68 69	•	* * * * * * * * * * * * * * * * * * *					98-051-1009 98-051-1009 98-051-1009 98-051-1009 98-051-1009 98-051-1009

Page 5

ac	NY 10252 NJ 73188 PA 88180 EP	A NY 00033 A	pproved by: Jan Michaelor  Lab Director
KEY:	ND or U = None Detected < = less that mg/L = milligrams per liter (equivalent to parts per B = analyte was detected in the method or trip	r million) mg/kg	mloograms per liter (equivelent to parts per billion)     milligrams per kilogram (equivalent to parts per million)     result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services, four samples will be discarded after 14 days unless we are advised otherwise.

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ONE RESEARCH CIRCLE WAVERLY, NY 1882 1002 TELEPHONE (607) 565-8500

FAX (007) 56% (083)

LAB SAMPLE ID

[:]L44711-1

SAMPLE SOURCE

20-JAN-2000

BESICORP KINGSTON

ricos

بر در: در:

ENSR Ron Carper 2005 Cabot Bo Langhorne, PA		Ĺ.	UPIGIN UESCRIPTION SAMPLED ON OATCHLOEPED POHO.	MW-241S GRAB	P KINGSTON 00 10:25 N 00 10:05	
Anolysis Performed	Result	Units	Detection Limit	Dete Anelyzed	Hethod	No tebook Reference
						•
Cyanical	U	mg/l	0.01	00-MAL-91	EPA 335.3	99-003-72
Aluminim	42.1	mg/l	0.075	GG-KAL-91	EPA 6010	99-227-02
Antimoty	υ	mq/l	0.050	19-JAN-00	EPA 6010	99-227-02
Barluggi	0.144	mg/l	0.016	19-JAN-00	EPA 6010	99-227-02
lerγt <mark>ig</mark> un	ប	ng/l	0.002	19-JAN-00	EPA 6010	99-227-02
[설] Cachniggh	ប	mg/L	0.0050	19-JAN-00	EPA 6010	99-227-02
alcfun	84.6	ng/l	0.500	19-JAN-00	EPA 6010	99-227-02
throngin	0.055	mg/l	0.010	19- JAN-00	EPA 6010	99-227-02
oba (Ž).	0.025	ng/l	0.010	19-JAN-00	EPA 6010	99-227-02
.oppde	0.068	mg/l	0.017	19-JAN-00	EPA 6010	99-227-02
ronar	57.7	mg/t	0.040	19- JAN-00	EPA 6010	99-227-02
.ead (E)	0.15	ng/l	0.010	ı	EPA 7421	
legnes un	16.8	mg/l	0.500	00-HAL-01	EPA 6010	99-227-02
lenganise.	1.68	mg/l	0.005	19-JAN-00	EPA 6010	99-227-02
(iekal	0-071	mg/l	0.012	19-JAH-00	FDA KOND	99-227-02
otalistum	11.5	mg/t	0.500	19-JAN-00		99-227-02
(S)	* * * * * * * * * * * * * * * * * * * *	HW/L	0,500	13 - JM4 - VV		77-121-UC
ST (Viii)	u	mg/L	0.010	19-JAN-00	EPA 6010	99-227-02
lod (Din	78.5	mg/l	0.200	19-JAX-00	EPA 6010	99-227-02
tha Èsture	ŭ	mg/l	0.001	19-JAN-00	EPA 7841	98-202-6

Page 1

NY 10252 QC: NJ 73188 PA 68160 **EPA NY 00033** Approved by 133 Lab Director 4 KEY: ND or U = None Detected ug/L = less than micongrams per liter (equivalent to parts per Limg/L = milligrams per liter (equivalent to parts per million) mg/kg milligrams per Glogram (equivalent to parts per o ion) = analyte was detected in the method or trip blank result estimated polew the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our infultry exceed the second of the value of the way.

Your samples will be discarded after 14 days unless we are advised otherwise.

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#### ONE RESEARCH CIRCLE WAVERLY, NY 19892 II & TELEPHONE (007) 565-9500 FAX (007) 505 1683

LAB SAMPLE 10

2

· L44711-1

ENSR Ron Carper 2005 Cabot Boulevard West Eanghorne, PA 19047 DATE

20-JAN-2000

SAMPLE SIXINCE OHIGH

DESCRIPTION

SAMITH II ON DATE BEINGIVER P.O. 163.

BESICORP KINGSTON

MW-2415 GRAB

11-JAN-00 10:25 by CLIENT 12-JAN-00 10:05

N/A

7A:				···		
vielysistPanformed	Result	Units	Datection Limit	Date Analyzed	Hethod	Notebook Reference
anadius	0.064	mg/l	0.010	19-JAN-00	EPA 6010	99-227-02
inc	0.153	ma/t	0.020	19-JAH-00	EPA 6010	99-227-02
<b>*</b> .	******					
PA 8260:						<del> </del>
hiorometrana	U	ug/l	5	12-JAN-00	EPA 8260	99-215-055
Invi shikaride	ū	ug/l	2	12-JAN-00	EPA 8260	99-215-055
h Loroett) arie	Ū	ug/l	5	12-JAN-00	EPA 8260	99-215-055
omome than	ŭ	ug/l	Š	12-JAK-G0	EPA 8260	99-215-055
1-01cm proathene	ŭ	ug/l	Š	12-JAN-00	EPA 8260	99-215-059
cetone ⁽⁾	ŭ	บฐ/ไ	25	12-JAN-00	EPA 8260	99-215-059
rbon distilitide	ŭ	ug/t	5	12-JAN-00	EPA 8260	99-215-05
	Ü	ug/l	5	12- JAN-00	EPA 8260	99-215-05
thyl greath or I do	Ü		ś	12-JAN-00	EPA 8260	99-215-05
ang-1223016h toroethane	Ü	ug/l	Š	12-JAH-00	EPA 8260	99-215-05
1-Dicillorgethene	U U	ug/l	\$	12-JAN-00	EPA 8260	99-215-05
a-1,2201chioroethero		ug/L	25	12-JAN-00	EPA 8260	99-215-05
thyl (thyl ketone (2-Butanona)	Ü	Ug/l				99-215-05
Laroforms	V	ug/L	5	12- JAN-DO	EPA B260	
1,1-Titchioroethane	U	ue/(	5	12-JAH-00	EPA 8260	99-215-05
rbondestrachtoride	U	ug/t	5	12-JAN-00	EPA 8260	99-215-05
nzenek 🖰 🖰	ช	ug/(	0.7	00-MAL-SI	EPA 8260	99-215-05
2-Dightoroothane	¥	ug/t	5	00-HAL-S1	EPA 8260	99-215-05
ichtaroethune	U	บฐ/ไ	5	00-KAL-S1	EPA 8260	99-215-05
2-Dichtoropropene	Ŭ	ug/l	5	12-JAH-00	EPA 8260	99-215-05
cnodich locate there	Ŭ	ug/l	5	12-JAN-00	EPA 8260	99-215-05
e-12-Pichtoropropens	ŭ	ug/l	5	12-JAN-0D	EPA 8260	99-215-05
thy course kerone	ŭ	ug/l	10	12-JAN-00	EPA 8260	99-215-05
thy 21 about ye kerone	ŭ	ug/l	Š [°]	12-JAN-00	EPA 8260	99-215-05
lua	U		Ś	12-JAN-00	EPA 8260	99-215-05
ana 3 3 Dichioropropene	บ	ug/l	5	12-JAN-00	EPA 8260	99-215-05
1,2:17 filitoroethane trackliproethanu	บ	ug/l	5	12-JAN-00	EPA 8260	99-215-05
	•	ug/l	10	12-JAN-00	EPA 8260	99-215-05
N exceptions	Ü	ug/L	5	12-JAN-00	EPA 8260	99-215-05
bromich Loromethano	Ų	ug/L				
lordenzane	U	บย/ไ	5	12-JAN-00		99-215-05
hylbinggre	Ų	ug/l	5	12-JAN-00		99-215-05
χγί <mark>μβο/π-</mark> χγίοπο	IJ	ug/L	5	00-NAL-SI		99-215-35
Xylace	U	∪g/l	5	12-JAH-00		99-215-05
tyrebe	U	ug/l	5	12-JAN-00		99-215-05
ronotors	ט	υg/l	5	12-JAH-00	EPA 8260	99-215-05
1,22 Tetrachlorosthans	U	ug/l	5	00-HAL-SI	EPA 8260	99-215-05

Page 2

oc -	NY 10252 NJ 73188	PA 68180	EPA NY 00033	Approved	1 by:	Lab Direc	10)
is ma/L	= None Detected = milligrame por titer (er = analyte was detected	quivalent to p	ess than arts per million) or trip blank	mg/kg = mil	congrams per liter Rigrams per kings suit estimated belo	iam (ednina eur	paris by

The plormation in this report is accurate to the best of our knowledge and ability. In no event shall our habitty exceed the contract of the Your samples will be discarded after 14 days unloss we are advised otherwise.

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ONE RESEARCH CIRCLE WAVERLY, NY 14892 1592 TELEPHONE (607) 565-3500 PAX (607) 565 983

LAB SAMPLE ID

Ilanghorne, PA 19047

2005 Cabot Boulevard West

Ron Carper

L44711-1

DAD 20-JAN-2000

SAMPLE SUBJECT CHIGHN DESCRIPTION

MO 113 FINAS

DATE INCUIVED

BESICORP KINGSTON

lces

MW-2415

GRAB

11-JAN-00 10:25 by CLIENT

12-JAN-00 10:05

N/A

Detection Limit Notebook

inalysis Performed	Result	Units_	Limit	Analyzed	Method	Reference
30000000000000000000000000000000000000						
<b>15</b>						
- MCE	Samulan Inte		B			
i fbrery Bearch Compounds:	, Results Unit	te Gnef	Retention Time			
			1386		<del></del>	
· 3						
<b>*</b>						
Burrogo ge Recovery:						
Dibrondstuoremethane	99	¥				99-215-0553
Toluenerin	98	X X				99-215-0553
4-Brand Margaenzene	101	Ÿ				99-215-0553
		-				,, (1) (3)3
EPA B270						
(5)		·		<del></del>		·
81s(2-chicrosthylether)	U	ug/l	6	13- JAN-00	EPA 8270	98-051-10063
Phenol A	U	∪g/l	6	13-JAN-00	EPA 8270	98-051-10063
Phenol 32 2-Chlorighenol 1,3-01cglorobenzena	ប	ug/t	6	13-JAN-00	EPA 8270	98-051-10063
1,3-01chlorobenzena	U	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
1,4-Dicklonobenzene	ប	ug/l	6	13- JAN-00	EPA 8270	98-051-10063
1,2-0 (chi probenzane	ប	ug/l	6	13~JAH-00	EPA 8270	98-051-10063
Bis(2-chlorofsopropylether)	v	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
2-Nethylphbrol Nexochlorgethans	ษ	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
Hexachiatoethans	U	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
N-Mitrigodi-N-propylamine	Ų	ug/l	6	13-JAH-00	EPA 8270	98-051-10063
3-Methylphonol/4-Methylphonol Mitrobotiona	Ų	ug/l	6	00-KAL-E1	EPA 8270	98-051-10063
N) Tropograng	U.	Ug/l	6	13-JAN-00	EPA 8270	98-051-10063
Taophotorie	ប :	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
2-Nitrophienol	U	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
2,4-0 figethy lphenol	U	ug/t	6	13-JAN-00	EPA 8270	98-051-10063
Bis(2-intercentexymethens) 2,4-0 fchlorophenol	ម ប	ug/t	6	13-JAH-00	EPA 8270	98-051-10063
1,2,4-3 cletilorobenzene	บ	ug/l	6	00-HAL-E1 00-HAL-E1	EPA 8270 EPA 8270	98-051-10063
Haby spirit in the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the	บ	ug/l ug/l	6	13-JAR-00	EPA 8270	98-051-10063
4-Chiquodniline	ti .	ug/t	12	13-JAN-00	EPA 8270	98-051-10063
Nexacijorobutediene	Ü	Ug/l	6	13-JAN-00	EPA 8270	98-051-13063 98-051-10063
4-Chiggo-3-methylphenol	ŭ	ug/l	12	13-JAN-00	EPA 8270	98 • 051 • 10063
2-Noth Pirispitholone	ย	ug/l	5	13-JAN-00	EPA 8270	98-051-10063
Hexacitiorocyclopentediene	บ	ug/l	6	13-JAN-00	EPA 8270	98-051-10063:2
Z.6.65Trighterophenol	ŭ	ug/l	6	13-JAN-00	EPA 8270	98-051-10063/2
2.4.5km/chlorophenol	ŭ	บอ/โ	6	13-JAN-00	EPA 8270	98-051-10063:£
2-Childronech thal eng	บ็	ug/l	š	13-JAN-00	EPA 8270	98-051-10063
2-Chickonechthalana 2-Nichenfiline	ū	ug/t	23	13-JAN-00	EPA 8270	98-051-10063
Dimethyl phtholeto	Ü	ug/t	6	13-JAN-00	EPA 8270	98-051-10063
Acenaphthylene	Ü	ug/l	6	13-JAH-00	EPA 8270	98-051-10063

Page 3

**EPA NY 00033** QC NY 10252 NJ 73168 PA 68180 Approved by: Lab Diferior < = leas inan ug/L micorgrams per liter (equivalent to marts por b ND or U = None Detected milligrams per kilogram (equivalent or parte pe mg/L = milligrams per liter (equivalent to parts per million) mg/kg result estimated below the quartest in limit = analyte was detected in the method or trip blank

The information in this report is accurate to the best of our knowledge and ability. In no event shall our transitity exceed the You'r samples will be discarded after 14 days unless we are advised otherwise

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ONE RESEARCH CIRCLE WAVERLY, NY 1989-1702 TELEPHONE (607) 565-2500 FAX (607) 565 pesq

LAB SAMPLE 10

減2

L44711-1

20-JAN-2000

t)CO1

**X** 

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE SHURCE ONIGH DESCRIPTION SAMITED ON DATE BECLIVED

BESICORP KINGSTON MW-241S. GRAB

11-JAN-00 10:25 by CLIENT 12-JAN-00 10:05

N/A P.O 160.

						the track of the
	-		Detection	Date		Natebook
itysts Hectorned	Result	Units	Limit	Analyzed	Hethod	Reference
1						
-Dinitrotoluene	น	ug/l	6	13-JAN-00	EPA B270	98-051-10063
(trosilline	ŭ	ug/l	23	13-JAN-0D	EPA 8270	98-051-10063
if troopi (ijne mephybite	Ū	บอ/โ	6	13-JAN-DO	EPA 8270	98-051-10063
-Dinterophenot	บั	ug/l	23	00-HAL-E1	EPA 8270	98-051-10063
enzolid in	U	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
-Dinigratelueno (I tradionat	U	ug/l	6	13-JAH-00	EPA 8270	98-051-10063
(Itropliens)	Ü	ug/l	23	13-JAN-00	EPA 8270	98-051-10063
ozuk i Markuar eza	IJ.	ug/L	6	13-JAN-00	EPA 8270 EPA 8270	98-851-10063
orani (i.	U . U	ug/l ug/l	<b>6</b> 6	00-HAL-Ef 00-HAL-Ef	EPA 8270 EPA 8270	98-051-10063 ] 98-051-10063 ]
hloropherylphenylether Htroughline	ŭ	ug/l	23	13-TVF-00	EPA BZ70	98-051-10063
fathylik fidinitrophanol	ŭ	ug/l	23	13-JAN-00	EPA 8270	98-051-10063
fothysis 6-dinitrophenol litropodiphenylenine	ŭ	บฐ/เ	6	13-JAN-00	EPA 8270	98-051-10063
romophury (phony other	ū	ug/l	6	13-JAR-00	EPA 8270	98-051-10063
cacht d'obenzene	Ľ	ug/l	6	13-JAK-00	EPA 8270	98-051-10063
rtechilorophono l	ñ	ug/L	52	13-JAH-00	EPA 8270	98-051-10063
romijkiny (phony lether cachter obenzene ntechterophono l mandarene	Ŭ	U9/1	6	13-JAN-00	EPA 8270	98-051-10063
CUL michian	ឋ ប	ug/l	6 6	00-HAL-EF 00-HAL-EF	EPA 8270 EPA 8270	98-051-10063 98-051-10063 98-051-10063 98-051-10063
rbezőjé. •n-búltyl-phtholote	. "	ug/l ug/l	6	13-JAN-00	EPA 8270	98-051-10063
roteggiene roteggiene	Ü	ug/l	6	13-JAN-00	EPA BZ70	98-051-10063
che di	บั	Ug/L	6	00-HAL-EE	EPA 8270	98-051-10063
ylbezzyt shthelete	บั	ug/l	6	13-JAH-00	EPA 8270	98-051-10063
reo(a) drixii rocerio	U	ug/l	5	13-JAH-00	EPA 8270	98-051-10063
nto(midnitroceno 3-Digilorobenzidine	υ	ug/l	12	13-JAH-00	EPA 8270	98-051-10063
Yacth	U	บสู/ไ	6	00-MAL-E1	EPA 8270	98-051-10063
-2-sthylhexyl phthalate	U	ug/l	6	00-HAL-E1 00-KAL-E1	EPA 8270 EPA 8270	98-051-10063 (3 98-051-10063 (3
n-offyl phthalate noffyl doronthene	<b>ប</b> ប	ug/l ug/l	6	13-JAN-00	EPA 8270	98-051-10063 H
note fligranthane	Ü	ug/t	6	13-JAN-00	EPA 8270	98-051-10063
izo(k) f Lücrenthene nzo(k) pyrane denost: 2,3-cd) pyrene	บั	ug/l	6	13-JAN-00	EPA 8270	98-051-10063
denoci (2,3-cd)pyrene	U	ug/l	6	13-JAN-00	EPA 8270	98-051-10063 🗿
Deuticitaliti) en Lu Lacotta	U	ug/l	6	13-JAH-00	EPA 8270	98-051-10063
nzolgihitiperylene	U	ug/l	6	00-KYT-£1	EPA 8270	98-051-10063
Extraction Inform	stions			00-#AL-E1		99-137-142
16.5						
		Page 4				
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· (4)				1.	1. 11	21.1-
35	NJ 73168 PA 68180	EPA NY 00033	Approve	od by:	ハシノン	
NY 10252	MA 19100 - EW 09100	2, , , , , ,		11	Lao Ciro	ciul ii
<u> </u>				- <i>fsf</i>	· · · ·	
	- In	es than	ug/L T	nic orgrams per 🚉	et (equivalent to	i dants per 😲 💢
YE NO or U = None Dales	:(eg < 10		•			
YE ND or U = None Delec				niligrams per kilo		conts per to the parts per to only
🐔 mo/L 🖚 millioreme i	bot liter (equivalent to be seen in the method	arts per million)	mg/kg ∵ m		iliyus (edeixy e.	

QC 3	NY 10252 NJ 73168 PA 68180 EPA NY 00033	Approved by:
mo/L	= None Delected <= less than = milligrams per liter (equivalent to parts per million) = analyte was delected in the method or trip blank	mg/kg milligrams per kildgram (equivalent to corts per to mg/kg milligrams per kildgram (equivalent to parts pc milligrams per kildgram (equivalent to parts pc milligrams per kildgram (equivalent to parts pc milligrams per kildgram (equivalent to corts per to milligrams per kildgrams (equivalent to corts per to milligrams) per kildgrams (equivalent to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to corts per to co

harinformation in this report is accurate to the best of our knowledge and ability. In no every shall our initially exceed Your eamples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs... Since 1965."



ENSR

Ron Carper

#### WAVERLY, NY 14800 1532 ONE RESEARCH CIRCLE TELEPHONE (607) 665-3600 FAN (607) 50% post

LAB SAMPLE ID :L44711-1

2005 Cabot Boulevard West

Langhorne, PA 19047

DATE 20-JAN-2000

SAMTE SOURCE OHIGH

BESICORP KINGSTON

DESCRIPTION

MW-2415 GRAB

SAWYED ON DATE OF CHIVED 11-JAN-00 10:25 by CLIENT

12-JAN-00 10:05

A\N

P.O. 200,

199.

elysis	Purformed	Reau	lt	Units	Detect Limit		Date Analyzed	Method	Hotebook Reference
lbrary.	Switch Compounds:		Results	Unita	Qual	Retention Time	י		
Inknown		76	ug/t	J	12.61			<del></del>	
Terpheny 2-fluoro Thenol-d	Primol Strangphanol Morards	64 46 31 78 72 74		X X X X X					98-051-10043 98-051-10063 98-051-10063 98-051-10063 98-051-10063 98-051-10063

Page 5

QC NY 10252 NJ 73188 PA 68180 **EPA NY 00033** Approved by KEY® ND or ND or U = None Detected = less than * mizzograms per liter requivalent to parts per b < 113/L = milligrams per liter (equivalent to parts per million) 🗝 milligrams per kriogram (equivalent 😁 parts pe = analyte was detected in the method or trip blank result ostimated below the quantitation limit

The inclination in this report is accurate to the best of our knowledge and ability. In no event shall our tingship exceed the a Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs . . . Since 1963."

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ONE RESEARCH CIRCLE WAVERLY, NY 14692-1532 TELEPHONE (807) 585-8600 FAX (807) 585-4083

26-JAN-2000

LAB SAMPLE ID : 144872-3

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 BANGLE SOURCE | BESICORP | MW-242S | DESIGNATION | MW-242S | GRAB | SAMBLEDON | 13-JAN-00 14:25 by CLIENT | 17-JAN-00 09:56 | N/A

Analysis Performed	Result	Unita	Detection Limit	Date Analyzed	Method	Notebook Reference
Cyanido, Total	U	mg/L	0.01	20-JAN-08	EPA 335.3	00-013-1
Atuninus	0.454	mg/l	0.075	25-JAN-00	EPA 6010	99-227-05
Antimony	U	ang/L	<b>9.05</b> 0	25-JAN-00	EPA 6010	99-227-05
Areenic	U	mg/l	0.002	20-JAN-00	EPA 7062	97-198-44
Barium	U	mg/l	0.016	00-NAL-25	EPA 6010	99-227-05
e. Beryliium	U	mg/l	0.00Z	25-JAX-00	EPA 6010	99-227-05
Cocintura	บ	mg/L	0.0030	25-JAN-00	EPA 6010	99-227-05
Catolum	91.4	mg/1	0.500	25-JAN-00	EPA 6010	99-227-05
Chrontum	U	mg/l	0.010	25-JAN-00	EPA 6010	99-227-05
Cobelt	u.o1	ng/l	0.010	25-JAN-00	EPA 6010	99-227-05
Copper	υ	mg/l	0.017	25-JAX-00	EPA 6010	99-227-0
[fon	20.4	mg/l	0.040	25-JAN-00	EPA 6010	99-227-00
Lead	0.001	mg/l	0,001	24-JAN-00	EPA 7421	98-195-10
Magnesium	11.3	mg/l	0.500	25-JAN-00	EPA 6010	99-227-0
Manganèse	2.3	æg/t	0.005	25- JAN-00	EPA 6010	99-227-0
Hercury	U	mg/l	0,0002	16-JAN-00	EPA 7470	98-126-6
Hickel	บ	mg/L	0.012	25-JAN-00	EPA 6010	99-227-0
Potassium	6.72	mg/l	0.500	25-JAN-00	EPA 6010	99-227-0
Salenium	บ	mg/1	0.002	00-NAL-15	EPA 7742	96-080-6
Silvet	U	mg/l	0.010	25-JAN-00	EPA 6010	99-227-0
Sodium	62.2	mg/l	0.200	25-JAN-00	EPA 6010	99-227-0

Page 1

: :	gc	fre	NY 10252	NJ 73166	PA 68180	EPÅ NY 00033	Approved by: Approved by: Lab Director	
• :	KEY:	mg/L	= None Deta = milligrams = analyte wa	par iller (ea	ulvalent to pr	es than arts per mittion) or trip blank	ug/L = micograme per liter (equivalent to parts per billion) mg/kg = milligrame per kilogram (equivalent to parts per million) J = recult setimated below the quantitation limit	

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services.

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## ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582 TELEPHONE (607) 566-8500 FAX (607) 565-4063

LAB SAMPLE ID

:L44872-3

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 DATE 26-JAN-2000

SAMPLE SOURCE !-BESICORP ORIGINI PARE MECENNED MW-2426 GRAB

13-JAN-00 14:25 by CLIENT 17-JAN-00 09:56

N/A

Analysis Performed	Result	Unita	Petection Limit	Date Analyzed	Method	Notebook Reference
That I Ium	U	mg/l	0.001	24-JAN-00	EPA 7841	<b>78-</b> 202-8
Venedius	v	mg∕i.	0.010	25-JAN-00	EPA 6010	99-227-05
Zinc	บ	maj/l	0.020	25-JAN-00		99-227-05
EPÅ 8260				J- 1 VV	2.7. 2010	//~EE1-03
Chloromethera	U	บล/ไ	5	19-JAN-00	EPA 8260	99-215-066
Vinyl chloride	Ü	Ug/l		19-JAN-00	EPA 8260	99-215-066
Chloroethane	Ŭ	ug/l	2 5	19-JAN-00	EPA 8260	99-215-066
Prememothere	Ü	10/l	Š	19-JAN-00	EPA 8260	99-215-066
1,1-Dichloroethana	ũ	ug/i	Š	19-JAN-00	EPA 8260	77~213*000 99-215-066
Icetone	ŭ	ug/l	25	19-JAN-00	EPA 8260	99-215-066
Carbon disulfide	Ú	Ug/l		19-JAN-00	EPA 8260	
tethylane chloride	Ü	Ug/l	5 5 5		EPA 8260	99-215-066
rans-1,2-Dichtoroethens	Ú	ug/l	5	19-JAN-00	EPA BZÓD	99-215-066
,1-Dichloroethane	ū	ug/l	5		EPA 8260	99-215-066
is-1,2-Dichloroothena	ŭ	ug/l	š	19-JAN-00	EPA 8260	99-215-066
ethyl ethyl ketone (2-Butenone)	Ű	Ug/(	5 25	19-JAN-00	EPA 8260	99-215-066 99-215-066
Chloroform	บั	∪g/l	Š	19-JAN-00	EPA 8260	99-215-066
,1,1-Trichlaroethene	Ũ	ug/i	5		EPA 8260	99-215-066
arbon tetrachioride	Ū	Ug/l	5		EPA 8260	99-215-066
enzene	ช	ug/t	0.7		EPA 8260	
,Z-Oichioroethana	ยั	ug/l	5 .		EPA 8260	99-215-0666 99-215-0666
richioroethana	ນ	ug/t	Ś		EPA 8260	99-213-066
,2-Dichtoropropens	Ū	ug/l	5		SPA 8260	
romodishloromethane	ŭ	ug/l	Š		EPA 8260	99-215-066
is-1,3-Dichteropropene	ũ	บย/ไ	5			99-213-066
ethyl isobutyl ketone	Ü	ug/t	10		EPA 8260	99-215-066
oluene	ŭ	ug/t	5		EPA 8260	99-215-066
rans-1,3-Dichloropropens	ŭ	ug/l	5		EPA 8260	99-215-066
,1,2-Trichloroothane	ប័	ug/t	2		EPA 8260	99-215-066
etrachloroethena	บั	ug/t	5		EPA 8260	99-215-0666
-Hexanone	ü	ug/l	10		EPA 8260	99-215-066
fbromochloromethene	ŭ	ug/l	5		EPA 8260	99-215-0664
hlorobenzene	ง เ	ug/t	5		EPA 8260	99-215-0664
thylbenzene	ŭ	ug/t	Š		EPA 8260 EPA 8260	99-215-0664
-Xylane/m-Xylane	ŭ	ug/l	Ś			99-215-0664
-Xylena	ŭ	Ug/l	<del>,</del>		EPA 8260	99-215-0664
tyrens	Ü	ug/l	5		EPA 8260 EPA 8260	99-215-0664 99-215-0664

Page 2

ac >	4	NY 10252	NJ 73168	PA 68180	EPA NY 00033	Approved by: John Rich
						Lab Director
KEY:	mg/L	<ul> <li>None Dete</li> <li>milligrams</li> <li>analyto wa</li> </ul>	por liter (eq	uivalent to pe	es then orte per million) or trip blank	ug/L = micrograms per liter (equivalent to parts per billion) mg/kg = milligrems per kilogram (equivalent to parts per million) J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582 FAX (807) 585-4083 TELEPHONE (807) 555-3600

LAB SAMPLE ID

:L44872-3

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

26-JAN-2000

BAMPLE SOURCE BESICORP OBKUN MW-2426 DESCRIPTION:

SAMPLED ON:

OATE/RECEDED / // GRAB

13-JAN-00 14:25 by CLIENT 17-JAN-00 09:56

N/A

nalysis Performed	Rogult	Unita	Detection Limit	Date Analyzad	Hethod	Notobook Reference
romoform	U	ug/l	5	19-JAN-00	EPA 8260	99-215-066
,1,2,2-Tetrachloroathana	υ	ug/l	5	19-JAN-00	EPA 5260	99-215-066
ibrary Kearch Compounds:	Results Un	its Qual	Retention I (me	·	<del></del>	
urrogate Recovery: 1bromofluoromethene	99	x				99-215-066
oluene-dB	98	X				99-215-066
-Bromoftuorobenzeno	98	X X X				99-215-066
PA 827U			· · · · · · · · · · · · · · · · · · ·		<del></del>	· · · · · · · · · · · · · · · · · · ·
fs(2-chloroethylether)	υ	บg/l	5	18-JAN-00	EPA 8270	98-051-100
ienot	Ú	ug/l	5	00-kal-81	EPA 8270	98-051-10
Chiorophenol	t t	Ug/l	5	18-JAN-00	EPA 8270	98-051-10
3-Dichiorobenzene	Ü	ug/L	5	18-Jah-00	EPA 8270	98-051-10
4-Dichlorobenzene	U	ug/l	5	18-JAN-00	ZPA 8270	98-051-10
2-Dichlorobonzene	U .	ug/l	5	18-JAN-00	EPA 6270	98-051-10
s(2-chlorofsopropylether)	U	ug/l	5	18-JAH-00	EPA 8270	98-051-10
Methylphenol	Ū	ug/t	3	18-JAN-00	EPA 8270	98-051-100
exach lorgethene	Ŭ	ug/l	5	18-JAN-00	EPA 8270	98-051-10
-Nitrosodi-N-propylegine	ΰ	υg/ί	5	18-Jan-00	EPA 8270	98-051-100
-Methylphenol/4-Methylphenol	U	ug/l	5	18-JAN-00	EPA 8270	98-051-10
trobenzens	Ù	Ug/l	5	18-JAN-80	EPA 8270	98-051-101
ocharche	Ú	ug/l	5	00-kal-81	EPA 8270	98-051-100
-N(trophenol	ů	ug/l	5	00-MAL-81	EPA 8270	98-051-10
4-01methylphanol	ū	ug/l	5	90-HAL-81	EPA 8270	98-051-10
e(2-chloroethoxymetheno)	Ü	ug/l	5	18-JAK-00	EPA 8270	98-051-10
,4-D1chlorophenol	Ū	ug/l	5	18-JAN-00	EPA 8270	98-051-10
2,4-Trichlorobenzene	ŭ	ug/l	5	18-JAN-00	EPA 8270	98-051-10
anthaleno	บั	ug/l	5	18-JAN-00	EPA 8270	98-051-10
-Chloroeniline	บ้	ug/l	10	18-JAN-00	EPA 8270	98-051-10
exactlorobitedienc	ŭ	ug/l	5	18-JAN-00	EPA 8270	98-051-10
-Chloro-3-methylphenol	ů	ug/l	10	18-JAN-00	EPA 8270	96-051-10
-Hethylmaphthalane	น้	ug/l	5	18-JAN-00	EPA 8270	98-051-10
exachiorosysiopentediene	บ	ug/l	5	18-JAN-00	EPA 8270	98-051-10
.4.6-Trichlorophenal	ΰ	ug/l	5	18-JAN-00	EPA 8270	98-051-10
4.5-Trichlorophenol	ŭ ·	ug/(	5	18-JAN-0D	EPA 8270	98-051-10
-Chloronechthalana	ŭ	ug/l	5	18-JAK-00	EPA 8270	98-051-10
-Nitroanilins	ū	ug/l	21	18-JAN-00	EPA 8270	98-051-100

Page 3

QC NY 10252 NJ 73188 PA 68180 EPA N	Approved by: Lab Director
KEY: NO or U = None Detected < = less than  mg/L = milligrems per liter (equivalent to parts per m  a = analyte was detected in the method or trip bi	ug/L = mlofograms per liter (equivalent to parts per billion)    lillion

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of those services. Your eamples will be discerded after 14 days unless we are advised otherwise.

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ONE RESEARCH CIRCLE TELEPHONE (607) 565-3500

WAVERLY, NY 14892-1532 FAX (607) \$65-4082

LAB SAMPLE ID

: L44872-3

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

DATE 26-JAN-2000

SAMPLE SOURCE / DESCRIPTION SAMPLED ON. DATE RECEIVED eo No.

BESICORP MW-242S GRAB

13-JAN-00 14:25 by CLIENT 17-JAN-00 09:56

N/A

Analysis Performed	Result	Units	Detection Limit	Data Analyzed	Method	Notebook Reference
Dimethyl phthalate	U	ug/l	5	00-XAL-81	EPA 8270	98-051-10098
Acenephthylene	บ	לפט / ו	5	18-JAX-00	EPA 8270	98-051-10098
2,6-Dinitrotoluene	ช	ug/l	5	18-JAH-00	EPA 8270	98-031-10098
3-liftroaniline	U	ug/t	21	00-KAL-51	EPA 8270	98-051-10098
Acamaphthene	υ	us/l	5	18-JAN-00	EPA 8270	98-051-10098
2,4-Dinitrophenal	U	∪g/l	21	18-JAN-DD	EPA 8270	98-051-10098
Dibenzofuran	ប	ug/l	5	00-KAL-81	EPA 8270	98-051-10098
2,4-Dinitrotoluene	U	ug/l	5	18-JAK-00	EPA 8270	98-051-10098
4-Nitrophenol	U	Ug/L	21	18-JAK-00	EPA 8270	98-051-10098
Diethyl phthalete	ម	up/l	5	18-JAN-00	EPA 8270	98-051-10098
Fluorono	Ü	Ug/t	5	18-JAX-00	EPA 8Z70	98-051-10098
4-Chlorophenylphenylether	Ū	ug/l	5	18-JAN-00	EPA 8270	98-051-10098
4-Nitroaniling	Ŭ	ug/l	21	18-JAK-00	EPA 6270	98-051-10098
2-Nathyl-4,6-dinitrophenol	Ū	us/l	21	00-KAL-81	EPA 8270	98-051-10098
i-Nitrosodiphanyiamine	Ŭ	Ug/l	5	OG-HAL-81	EPA 8270	98-051-10098
4-Bromophenylphenylether	ū	ug/l	Ś	18-JAN-00	EPA 8270	98-051-10098
Hexach Lorobenzene	ŭ	ug/l	5	18-JAN-CD	EPA -8270	98-051-10098
Pentach larophenol	Ū	ug/l	21	18-JAN-00	EPA 8270	98-051-10098
Phenenthrono	Ū	vg/l	5	18-JAN-00	EPA 8270	98+051-10098
Unthracene	ŭ	ug/l	Ę	00-XAL-81	EPA 8270	
Carbezole	Ū	ug/l	ξ	18-JAK-00	EPA 8270	98-051-10098
11-n-butyl phthalate	ŭ	ug/l	ć	00-MAL-81	EPA 8270	98-051-10098
luorenthene	ŭ	ug/i	ć	18-JAK-00		98-051-10098
PYTONO	นั	ug/l	Ę	CO-XAL-81	EPA 8270	98-051-10098
hutyibenzyi phthalate	ŭ	ug/l	É		EPA 8270	98-051-10096
enzo(a)anthracene	ŭ	Ug/l	5	18-JAN-00	EPA 8270	98-051-10098
,3-Dichlorobenzidine	ν	ug/l	10	00-MAL-81	EPA 8270	95-031-10098
hrysene	บ	ug/t	5	18-JAN-00	EPA 8270	98-051-10098
is-2-ethythexyl phthetare	น้	ug/l	5	00-HAL-81	EPA 8270	98-051-10098
i-n-octyl phthelate	น		2	00-KAL-81	EPA 8270	98-051-10098
enzo(b)fluoranzhene	บ	ug/l	2	18-JAN-00	EPA 8270	98-051-10098
ento(k)fluoranthane		ug/L	2	18-1YH-00	EPA 8270	98-051-10096
euro(v)tituoimititetis	U U	υg/t	2	18-JAN-00	EPA 8270	98-031-10098
ndeno(1,2,3-cd)pyrene	υ	ug/l	2	18-JAK-00	EPA 8270	98-051-10098
ibenzo(a,h)anthracene	Ü	ug/l	5		EPA 8270	98-051-10098
enzo(g,h,f)perylene	u	ug/l	5 5		0756 A93	98-051-10098
And And the Append	U	ug/t	7	18-JAN-00	EPA 8270	98-051-10098
Extraction information:				18-JAN-DO		99-211-1

Pege 4

NY 10252

NJ 73168

PA 58180

**EPA NY 00033** 

Approved by:

Lab Director

ND or U = None Detected

= less than

ug/L

= miorograms per liter (equivelent to parte per billion)

= milligrame per iller (equivalent to parts per million) mg/L = analyte was detected in the method or trip blank

mg/kg

= milligrams per kilogram (equivalent to parte per million)

= recult estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these pervices. Your samples will be discarded after 14 days unless we are advised otherwise.



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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532 TELEPHONE (807) 686-3500

PAX (607) 566-4082

LAB SAMPLE ID :L44872-3

ensr Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE COURCE BESICORP MW-2428 PESCHIPTION
SAMPLED ON
DATE RECEIVED GRAB 13-JAN-00 14:25 by CLIENT 17-JAN-00 09:56 N/A

26-JAN-2000

DATE

•	Analysis Performed	Reou	lt	Units	Detect Limit	iton	Date Analyzed	Kethod	Hotebook Reference
	Library Search Compounds:	_	Rosults	Units	Qual	Rotention Time			
	Unknown	55	uy/t	18	12.67				
	Surrogate Recovery: Terphenyl-d14 2-Fluorophenol Phenol-d5 2,4,6-Tribromophenol Nitrobonzene-d5 2-Fluorobiphenyl	68 62 29 75 60 61	٠	* * * * * * * * * * * * * * * * * * *					98-051-1009 98-051-1009 98-051-1009 98-051-1009 98-051-1009 98-051-1009

Page 5

ac If	NY 10252	NJ 73188	PA 68180	EPA NY 00033	Approved by: Lab Director
KEY: ND or mg/L B	U = None Dete = milligrams = analyte wi	per liter (eq	ulvalent to pr	es than arts per million) or trip blank	ug/L = miorograms per liter (equivalent to parte per billion) mg/kg = milligrams per kilogram (equivalent to parte per million) = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are edulated otherwise.

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## ONE RESEARCH CIRCLE WAVERLY, NY 14802-1592 TELEPHONE (607) 565-3600 FAX (607) 565-4098

LAB SAMPLE ID

¹L44872-1

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

DATE 26-JAN-2000

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BESICORP MW-2445 GRAB

13-JAN-00 10:30 by CLIENT 17-JAN-00 09:56

N/A

Analymia Parformed	Result	Units	Detection Limit	Dete Analyzed	Hethod	Notebook Reference
Cyanide, Total	U	mg/l	0.01	CO-NAL-OS	EPA 335.3	00-013-1
Aluminum	20.5	mg/l	0.075	25-JAN-00	EPA 6010	99-227-05
Antimony	u	mg/t	0_850	25-JAN-00	EPA 6010	99-227-05
Amenic	0.029	mg/l	0.010	20-JAN-00	EPA 706Z	97-198-44
Bartum	0.072	mg/l	0.016	25-JAN-00	EPA 6010	99-227-05
Beryllium	υ	mg/l	0.002	25-JAN-00	EPA 6010	99-227-05
Codntum	U	mg/l	0.0050	25-JAN-00	EPA 6010	99-227-05
Calcium	76	mg/l	0,500	25-JAN-00	EPA 6010	99-227-05
Chromium	υ	bg/l	0.010	25-JAN-00	EPA 6010 -	99-227-05
Cobelt	0.031	mg/l	0.010	25-JAN-00	EPA 6010	99-227-05
Copper	0.037	mg/t	0-017	25-JAN-00	EPA 6010	99-227-05
Iron	42.4	mg/L	0.040	25-JAN-00	EPA 6010	99-227-05
Load	0,02	mg/l	0.005	26-JAN-00	EPA 7421	98-195-15
Negnesius	12.9	mg/t	0.500	25-JAN-00	EPA 6010	99-227-05
Hanganese	2.69	ing/(	0.005	00-NAL-25	EPA 6010	99-227-05
Hercury	υ	mg/l	0.0002	18-JAN-00	EPA 7470	98-126-63
Nfakel	0.047	mg/l	0.012	25-JAN-00	EPA 6010	99-227-05
Potessium	9.8	mg/l	0.500	00-HAL-25	EPA 6010	99-227-05
Selenium	υ	mg/l	0.002	21-JAN-00	EPA 7742	96-080-67
8ilver	U	ma/l	0.010	25-JAN-00	EPA 6010	99-727-05
Sódium	105	mg/l	0-300	00-NAL-55	EPA 6010	99-227-03

Pego 1

NY 10252

NJ 73168

PA 68180

**EPA NY 00033** 

Approved by:

Lab Director

KEY:

: 1

ND or U = None Datocted

= lose than

ug/L

= mlofograme per liter (equivalent to parte per billion)

mg/L

mg/kg

= milligrams per kilogram (equivalent to parts per million)

fimil nolistituting on woled below the quantitation limit

= milligrams per liter (equivalent to parts per million) = enalyte was detected in the method or trip blank

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services Your samples will be discarded after 14 days unless we are advised otherwiss.



## ONE RESEARCH CIRCLE WAVERLY, NY 14802-1582 TELEPHONE (607) 585-3500

FAX (607) 565-408S

DATE 26-JAN-2000

LAB SAMPLE ID :L44872-1

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

BANFLE SOURCE	BESICORP			
	MW-2446			
The Tarrier of Alleria and Superior State (Control of Control of C	GRAB		_	
	13-JAN-00		by	CLIENT
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	17-JAN-00 N/A	03:20		
THE REPUNDANCE OF STREET	.,,			

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Hethod	Notebook Reference
· 	ti	mg/l	0_001	24-JAN-00	EPA 7841	98-202-8
ihallium	¥	ust, r	0.001	F4-8141 00	CIN 1011	70 272 5
/anadium	0.024	mg/l	0.010	25-JAN-00	EPA 6010	99-227-05
itne	D.108	mg/l	0.020	25-JAN-00	EPA 6010	99-227-09
EPA 8260						
hioromethane	บ	ug/i	5	19-JAN-00	EPA 8260	99-215-066
/inyl chloride	Ū	Ug/l	2	19-JAN-00	EPA 8260	99-215-066
thlorouthans	Ū	ug/l	5	19-JAK-00	EPA 8260	99-215-066
scourancypeus Tutotoerusus	บั	ug/t	5 2 5 5	00-KAL-61	EPA 8260	99-213-06
	ŭ	ug/l	5	19-JAK-00	EPA 8260	99-215-06
,1-Dichloroothene	ŭ	ug/l	25	19-JAN-00	EPA 8260	99-215-06
tetone	U U	ug/t	5	19~JAN-00	EPA 8260	99-215-06
arbon disulfide			5	19-JAN-00	EPA 8260	99-215-06
ethylane chlorido	Ų	ug/L	2	19-JAN-00	EPA 8260	99-215-06
rans-1,2-Dichloreathene	U	ug/t	3	19-JAN-00	EPA 8260	99-215-06
,1-Dichloroothume	U	us/t	5	19-JAN-00	PPA B260	99-215-06
is-1,2-0ichloroethene	V	ug/l	5 25 5 5 5	19-JAN-00	EPA 8260	99-215-06
(ethyl ethyl ketone (2-Butanone)	บ	ug/l	25		EPA 8260	99-215-06
Chloroform	Ü	ug/l	2	19-JAY-00		
1,1,1-Trichtorogthane	V	บg/โ	5	19-JAX-00	EPA 8260	99-215-06
arbon tetrachloride	บ	ug/l		19-JAN-00	EPA 8260	99-213-06
ichzene	IJ	ug/l	0.7	19-JAN-00	EPA 8260	99-215-06
1.2-0 ichloroethane	ū	usi/l	5 ,	19-JAH-00	COSS A93	99-215-06
richloroethene	น	Ug/l	5	19-JAN-00	EPA 8260	99-215-06
.2-Dichloropropene	ΰ.	ug/t	5	19- JAN-00	EPA 8260	99-215-06
i, 2-prentoropropeno Promodichiarometheno	ŭ	ug/l	5	19-JAN-00	EPA 8260	99-215-06
	ŭ	ug/l	Š	00-KAL-01	EPA 8260	99-215-06
:[a-1,3-Dichloropropene	Ü	ug/t	10	19-JAN-00	EPA 8260	99-215-06
iethyl isobutyl ketone	ü	up/l	5	19-JAN-00	EPA 8260	99-215-06
roluene	Ü	ug/l	ź	19-JAN-00	EPA 8260	99-215-06
trans-1,3-01chlaropropenc	บ	υ <b>4/</b> ί		79-JAN-00	EPA 8260	99-215-06
,1,2-Trichlaroethane	•		5 5	19-JAN-DO		99-215-06
Tetrach Lorocthone	Ü	ug/L	10	19-JAN-00		99-215-06
Z-Hexanona	ü	Ug/l	3	00-KAL-61		99-215-06
) ibromoch (orome than a	U	ug/l		19-JAN-DO		99-215-06
Chlorobenzena	U	ug/l	5 5	10-14Y-00		99-215-06
thylbenzene	บ	ug/(	2			99-215-06
-Xylane/m-Xylane	ឋ	ug/l	5	19-JAN-00		
o-Xylone	U	ug/l	5	19-JAN-00		99-215-06
Styreno	Ü	ug/L	5	19-JAN-00	EPA 8260	99-215-06

Page 2

QC NY 10252 NJ 73188 PA 88180 EPA NY 00033	Approved by: Lab Director
KEY: NO or U = None Detected <= less then  mg/L = milligrame per liter (equivalent to parte per million)  B = applyte was detected in the method or trip blank	ug/t = mlerbgrams per liter (equivalent to parts per billion) mg/kg = milligrams per kilogram (equivalent to parts per million) J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs . . . Since 1963."

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1632 TELEPHONE (607) 566-3600

FAX (607) 565-4083

LAB SAMPLE 10 :L44872-1

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

BANFLE SOURCE! BESICORP ONON MW-244S

26-JAN-2000

DESCRIPTION ; SAMPLED ON ; DATE RECEIVEDS GRAB 13-JAN-00 10:30 by CLIENT 17-JAN-00 09:56 N/A

DATE

Analysis Performed	Result	Unite	Detection Limit	Date Analyzed	Hethod	Notebook Reference	
Bromoform 1,1,2,2-Tetrechlorouthane	V U	ug/l ug/l	5 5	19-JAN-00 19-JAN-00	EPA 8260 EPA 8260	99-215-0662 99-215-0662	
Library Search Compounds:	Results Un	ito Qual	Retention Time			777 13-4002	
· · · · · · · · · · · · · · · · · · ·							
Burrogate Recovery: Olbromofluoromethane			•				
otoromottuorometmane (oluena-d8	10Z	X				99-215-0662	
i-Bromofilorobenzene	97	Y X X				99-215-0662	
- ni other real codity slic	100	*				99-215-0662	
PA 8270							
Ma(2-chloroethylether)	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009	
Contract Contract	Ų	ug/t	5	18-JAN-00	EPA 8270	98-051-1009	
,3-Dichlerobenzene	U	ug/t	2	00-KAL-51	EPA 8270	98-051-1009	
4-Dichlorobenzene	ט ט	ug/l	3	18-JAN-00	EPA 8270	98-051-1009	
,2-Dichlorobenzene	ŭ	ug/(	?	18-JAN-00	EPA 8270	98-051-1005	
is(2-chloroisopropylether)	ŭ	ug/l ug/l	3	18-JAN-00	EPA 8270	98-051-1009	
-Nothylphenol	บั	Ug/1	2	00-kal-81 00-kal-81	EPA 8270	98-051-1009	
exact lorgethene	ŭ	ug/i	Ę	00-NAL-81	EPA 8270 EPA 8270	98-051-1009	
-Nitrogodi-X-propylemine	ŭ	ug/l	š	00-KAL-81	EPA 8270	98-051-1009	
-Methylphenol/4-Methylphenol	ยั	ug/l	ξ	18-JAN-00	EPA 6270	98-051-1009 98-051-1009	
[trobenzene	ŭ	ug/l	<b>,</b>	18-JAN-00	EPA 8270	98-051-1009	
20phorone	ΰ	ug/i	Š	18-JAN-00	EPA 8270	98-051-1009	
-#itrophanol	Ŭ	นช/ไ	š	18-JAN-00	EPA 8270	98-051-1009	
,4-Dimethylphonal	Ù	ug/l	Š	18-JAN-00	EPA 8270	98-051-1009	
is(2-chtorosthoxymothene)	Ū	Ug/t	5	18-JAN-00	EPA 8270	98-051-1009	
,4-Dichtorophenol	ប	us/l	5	18-JAN-00	EPA 8270	98-051-1009	
,2,4-Trichtorobenzene	U	ug/l	S	18-JAH-00	EPA 8270	96-051-1009	
uphthal eng	U	ug/t	5	18-JAN-00	EPA 8270	98-051-1009	
-Chloroenlline	บ	ug/l	10	18- JAN-00	EPA 8270	98-051-1009	
exachlorobutadiene	Ų	Ug/L	5		EPA 8270	98-051-1009	
-Chioro-3-methylphenol	Ų	ug/t	10	18-JAN-00	EPA 8270	98-051-1009	
-Nothylnaphthalene	U	ug/l	5	18-JAN-00	EPA 8270	98-051-1009	
exachlerocyclopentediene ,4,6-Trichlorophenol	ប	ug/l	5		EPA 8270	98-031-1009	
,4,5-Trichlorophenol	ນ	ug/l	5		EPA 8270	98-051-1009	
-Chloronaphthalens	U	ug/t	5		EPA 8270	98-051-1009	
·Nitroeniline	ប ប	ug/l ug/l	S 21	00-KAL-81 00-KAL-81	EPA 8270	98-051-1009	

Pega 3

ac_(	<u> </u>	NY 10252	NJ 73168	PA 88180	EPA NY 00033	Approved by: John Leb Director
KEY:	mg/L	= None Dete = milligrame = analyte wa	per Iller (eq	ulvalent to pa	os than rts per militan) or trip blank	ug/L = miorgrams per liter (equivalent to parts per billion) mg/kg = milligrams per kilogram (equivalent to parts per million) = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services Your samples will be discarded after 14 days unless we are advised otherwise.



## ONE RESEARCH CIRCLE WAVERLY, NY 14892-1682 TELEPHONE (607) 585-3500

FAX (607) 565-4083

DATE

26-JAN-2000

LAB SAMPLE ID :L44872-1

**ENSR** Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 GAMPLE SOURCE
OFIGHE
DESCRIPTION
SEAMPLES ON
OATERBESSVED
SERO NO BESICORP MW-2445 GRAB 13-JAN-00 10:30 by CLIENT 17-JAN-00 09:56 N/A

Analysis Performed	Result	Unita	Detection Limit	Date Analyzed	Method	Notebook Reference
Dimethyl phthalete	บ	ug/l	5	00-KAL-81	EPA 8270	98-051-10096
Acenaphthylane	Ū	Ug/l	5	18-JAN-00	EPA 8270	98-051-10096
2,6-Dinitrotaluene	Ü	ug/l	5	18-JAN-00	EPA 8270	98-051-10096
3-Mitroeniline	ŭ	ug/l	21	18-JAH-00	EPA 8270	98-051-10094
Acanaphthene	บ	us/l	5	00-HAL-81	EPA 8270	98-051-10096
2,4-0initrophenal	Ú	ua/l	21	18-JAX-00	EPA 8270	98-051-10096
Dibenzofuran	ŭ	ug/l	5	00-KAL-81	EPA 8270	98-051-10096
2.4-Binitrotoluono	ប៊	ug/l	Š	18-JAH-00	BPA 8270	98-051-10096
4-Hitrophenal	Ŭ	ug/i	21	18-JAN-00	EPA 8270	98-051-10096
Diethyl phthalate	Ū	ug/l	5	18-JAN-00	EPA 8270	98-051-10096
Fluorena	บั	ug/l	5	18- JAN-00	EPA 8270	98-051-10096
4-Chlorophenylphenylethor	ŭ	υg/l	5	00-MAL-81	EPA 8270	98-051-10096
4-Witroaniline	บั	ug/l	21	18-JAX-00	EPA 8270	98-051-10096
2-Nethyl-4,6-dinitrophonol	ม	ua/l	21	00-KAL-B1	EPA 8270	98-051-10096
N-Mitrosodiphonylamine	น้	ug/l	5	18-JAN-00	EPA 8270	98-051 <b>-</b> 10096
4-Bromophenylphonylether	ŭ	ug/l	5	15-JAN-00	EPA 8270	98-051-10096
Kaxachi arobenzene	ŭ	Ug/l	Š	18-JAN-00	EPA 8270	98-051-10096
Pantachtorochenol	Ü	นส/ไ	21	18-JAN-00	EPA 8270	98-051-10096
Phenanthrene	ŭ	บฐ/โ	5	18-JAN-00	EPA 8270	98-051-10096
Anthracene	ŭ	ug/l	5	18-JAN-00	EPA 827D	98-051-10096
Carbazole	ŭ	นัย/ไ	Š	18- JAH-00	EPA 8270	98-051-10096
	Ü	Vg/1	5	00-KAL-61	EPA 8270	98-051-10096
Di-m-butyl phthalate	บั	ug/l	Š	00-HAL-8F	EPA 8270	98-051-10094
/ranc	. ŭ	ug/l	Š	18-JAN-00	EPA 8270	98-051-10096
writylbenzyl phthalate	ับ	ug/l	Š	18-JAN-00	EPA BZ70 ·	98-051-10096
Benzo(a)Anthracene	บั	ug/l	<u>.</u>	18-JAH-DD	EPA 8270	98-051-10096
3,3-Dichlorobenzidine	บั	ug/l	10	16-JAN-00	EPA 8270	98-051-10096
	ŭ	ug/l	5	18- JAN-00	EPA 8270	98-051-10096
Chrysens	Ü	ug/t	5	18-JAN-DO	EPA 6270	98-051-10096
Bis-2-ethylhexyl phthelate	Ŭ	ug/l	Ť	18-JAN-00	EPA 8270 .	98-051-10096
Di-n-octyl phthulate	· U	ug/t	Ŕ	18-JAN-00	EPA 8270	98-051-10096
Benza(b)fluorenthene	ับ ป	ug/l	5	18-JAN-00	EPA 8270	98-051-10096
Benzo(k)fluoranthene	•	ug/t ug/t	4	18-JAN-00	EPA 8270	98-051-10096
Benzo(a)pyrane	y.		1	18-JAN-00	EPA 8270	98-031-10096
Indeno(1,2,3-cd)pyrene	ָט ע	ug/l	, E	00-KAL-81	EPA 8270	98-051-10096
Dibenzo(a,h)anthracena	บ	ug/l	5	18-JAN-00	EPA 8270	98-051-10096
Benzo(g,h,i)perylone	U	ug/l	)	10-144-01	CIA OCIV	70 071 10070
Extraction Information:				18-JAN-08		99-211-1

Page 4

QC_	NY 10252 NJ 73168 PA 88180 EPA NY 00033	Approved by: Jan Director
KEY:	ND or U = None Detected < = less than  mg/L = milligrams per liter (equivalent to parts per million)  = analyte was detected in the method or trip blank	ug/L = micrograms per liter (equivalent to parts per billion) mg/kg = milligrams per kitogram (equivalent to parts per million)  J = result estimated below the quantitation limit

s information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532 TELEPHONE (607) 665-3500

FAX (807) 565-4083

LAB SAMPLE ID

L44872-1

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

CAMPLE SOURCE DESCAPTION BAMPLED ON DATE RECEIVED TO PLOT NO

DATE 2000-KAT-3¢ BESICORP

MW-2445 GRAB 13-JAN-00 10:30 by CLIENT 17-JAN-00 09:56 N/A

Analysis Performed	Real	ile	Units	Petest Limit	ton	Date Analyzed	Hethod	Notebook Reference
Library Search Compounds:		Results	Units	Quel	Retention Time		,	
Unknoun	60	ug/l	JB	12.65				
Surrogete Recovery: Yerphenyl-di4 2-Fluorophenol Phenol-d5 2,4,6-Tribromophenol Nitrobenzene-d5 2-Fluorobiphenyl	63 48 33 78 65 66		X X X			·		98-051-10096 98-051-10096 98-051-10096 98-051-10096 98-051-10096 98-051-10096

Page 5

NY 10262

NJ 73188 **OB180 A**9

EPA NY 00033

Approved by:

Lab Diractor

KEY: ND or U = None Detected

= less than

ug/L

= micrograme per liter (equivalent to parte per billion)

mg/kg

mg/L

= milligrams per liter (equivalent to parts por million) = analyto was detected in the method or trip blank

= milligrams per kilogram (equivalent to parts per million)

= result celimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs... Since 1983."



ONE RESEARCH CIRCLE WAYPRILY, NY 1982, USB TELEPHONE (607) SUS-3500

FAX (607) W.C. pikh

LAB SAMPLE ID

L44711-7

ENSR Ron Carper Z005 Cabot Boulevard West Langhorne, PA 19047 UAH 20-JAN-2000

SAMPLE DENING PROPER

BESICORP KINGSTON E-WM

DESI OPTION

GRAB

SAMPLE IT ON

11-JAN-00 16:10 by CLIENT

DATE DECEMBE 12-JAN-00 10:05

N/A

47.3 0.068	mg/l	0.01	Anelyzed	EPA 335.3	99-003-72
47.3	<del>-</del>		19-JAN-00	EPA 335.3	99-003-72
	mg/l				77 VVJ 1E
0.068		0.075	00-MAL-91	EPA 6010	99-227-02
	mg/l	0.050	19-JAH-00	EPA 6010	99-227-02
0.817	mg/l	0.016	00-HAL-91	EPA 6010	99-227-02
υ	mg/l	0.002	19-JAN-00	EPA 6010	99-227-02
U	mg/t	0.0050	19- JAK-00	EPA 6010	99-227-02
0.917	mg/l	0.010	19- JAN-00	EPA 6010	99-227-02
0.072	mg/l	0.016	19- JAK-00	EPA 6010	99-227-02
0.149	mg/l	0,017	19-JAN-00	EPA 6010	<b>▽▽- 227-02</b>
124	mg/l	0.040	19-JAN-00	EPA 6010	99-227-02
0.049	me/l	0.010		EPA 7421	
43.9	mg/t	0.500	0D-KAL-91	EPA 6010	<del>?</del> 9-227-02
6,48	mg/t	0.005	19-JAH-00	EPA 6010	99-227-02
0.903	mg/L	0.012	19-JAN-00	EPA 6010	99-227-02
9.14 .	ng/l	0.500	19-JAN-00	EPA 6010	99-227-02
U	mg/l	0.010	19- JAN-00	EPA 6010	99-227-02
7,36	mg/(	0.200	19-JAN-00	EPA 6010	99-227-02
ŭ	mg/l	0.001	19-JAN-00	EPA 7841	98-202-6
0.084	mg/l	0.010	19-JAN-00	EPA 6010	99-227-02
	U 0.917 0.072 0.149 124 0.049 43.9 6.48 0.903 9.14 U 7.36	U mg/l U mg/l 0.917 mg/l 0.072 mg/l 0.149 mg/l 124 mg/l 0.049 mg/l 43.9 mg/l 6.48 mg/l 0.903 me/l 9.14 mg/l U mg/l 7.36 mg/l	U mg/l 0.002  U mg/l 0.0050  0.917 mg/l 0.010  0.072 mg/l 0.016  0.149 mg/l 0.017  124 mg/l 0.040  0.049 mg/l 0.010  43.9 mg/l 0.500  6.48 mg/l 0.005  0.903 mg/l 0.005  U mg/l 0.500  U mg/l 0.010  7.36 mg/l 0.200  U mg/l 0.001	U mg/l 0.002 19-JAN-00  U mg/l 0.0050 19-JAN-00  0.917 mg/l 0.010 19-JAN-00  0.072 mg/l 0.016 19-JAN-00  0.149 mg/l 0.017 19-JAN-00  124 mg/l 0.040 19-JAN-00  0.049 mg/l 0.010  43.9 mg/l 0.500 19-JAN-00  6.48 mg/l 0.005 19-JAN-00  0.903 mg/l 0.005 19-JAN-00  9.14 mg/l 0.500 19-JAN-00  7.36 mg/l 0.200 19-JAN-00  7.36 mg/l 0.200 19-JAN-00	U mg/1 0.002 19-JAN-00 EPA 6010 U mg/1 0.0050 19-JAN-00 EPA 6010  0.917 mg/1 0.010 19-JAN-00 EPA 6010  0.072 mg/1 0.010 19-JAN-00 EPA 6010  0.149 mg/1 0.017 19-JAN-00 EPA 6010  124 mg/1 0.040 19-JAN-00 EPA 6010  0.049 mg/1 0.010 EPA 7421  43.9 mg/1 0.500 19-JAN-00 EPA 6010  6.48 mg/1 0.005 19-JAN-00 EPA 6010  0.903 mg/1 0.005 19-JAN-00 EPA 6010  9.14 mg/1 0.500 19-JAN-00 EPA 6010  10 mg/1 0.500 19-JAN-00 EPA 6010  10 mg/1 0.010 19-JAN-00 EPA 6010  17.36 mg/1 0.200 19-JAN-00 EPA 6010  17.36 mg/1 0.200 19-JAN-00 EPA 6010

Page 1

**EPA NY 00033** NY 10282 NJ 73188 PA 66180 Approved by Lab Direc :n: micograms per liter four valent to direct office EY: ND or U = None Detacted = less than ug/L milligrams per kilogram (equivalent 8 pt. 15 per # mg/kg = milligrams per liter (equivalent to parts per million) mg/L result nationaled books the quantitation time. = analyte was detected in the method or trip blank В

enformation in this report is accurate to the best of our knowledge and ability. In no event small our habitity, exceed the size of thrist acfour samples will be discarded after 14 days unless we are advised otherwise

"Our family, caring about your analytical needs . . . Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 13502 1142 TELEPHONE (607) 565-3500 FAX (697) 145 (000)

LAB SAMPLE 10

: L44711-7

ENBR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

DVII 20-JAN-2000

SAMPLE SUMBLE BESICORP KINGSTON Capalitie

MW-3 DESCRIPTION GRAB

SAMELLEON DATE INCEIVED

11-JAN-00 16:10 by CLIENT 12-JAN-00 10:05

orvi

111 110 ! N/A

elysis.Performed	TiusaR	Unita	Detection Limit	Date Analyzed	Rethod	Hotebook Reference
ne ZB Så	0.309	mg/l	0.020	19-JAH-00	EPA 6010	99-227-02
A 8260						
Longraghana	U		5			
ny lich löride	Ü	ug/l ug/l	2	12-JAK-00 12-JAK-00	EPA 8260 EPA 8260	99-215-0554
Locatione	ũ	ug/l	ξ.	12-JAN-00	EPA 8260	99-215-3554
amane thene	Ü	ug/l	ć	12-JAN-00	EPA 8260	99-215-0554 99-215-0554
1-Dick for outherne	11	ug/t	έ	12-JAN-00	EPA 8260	
2009	ii	ug/l	25	12-JAN-00	EPA 8260	97-215-0554
rboo disultido	ii	ug/l	\$3 \$	12-JAK-00		99-215-0554
tinggenesch tor (de	<b>U</b>	ug/l	,	00-MAL-51	EPA 8260	99-215-0554
maid: 2:Dichlorouthene	11	ug/i		12-JAN-00	EPA 8260 EPA 8260	99-2:5-0554
-Richioroethene	11	U9/t	,	12-JAN-00		99-215-0554
-162-Dichlorgethene	ii	Ug/l	5	12-JAN-00	EPA 8260 EPA 8260	99-215-0554
hyl (thyl ketone (2-Butanone)	ĭi	טקיל	25	12-14H-00	EPA 8260	99-215-0554
Oreform	ŭ	ug/t	5	00-HAL-S1	EPA 8260	99.215.0554
AST pich Lorgothane	ŭ	ug/l	5	12-JAN-00	EPA 6260	99-215-0554
mon tetrachloride	บั	ug/t	5	12-JAN-00	EPA 8260	99-215-0554 99-215-0554
oriète :	ŭ	ug/l	ő. <b>7</b>	12-JAN-00	EPA 826C	
e ichioroethane	ij	ug/i	5.'	12-JAN-00	EPA 8260	99-215-0554
Cilorosthene	บั	ug/i	ś	00-HAL-S1	EPA BZ60	99+215-0554 99+215-0554
Picilipropropene	ij	ug/t	Ŕ	12-JAH-00	EPA 8260 .	77.612.0234
original childrenethane	ម័	ug/l	ξ	12-JAN-90	EPA 8260	99-215-05547 99-215-05547
3.3.Dichteropropene	ŭ	ug/l	Ś	00-HAL-21	EPA 8260	
Williambutyl ketone	ũ	บอ/เ	ĩo	12-JAN-00	EPA 8260	99-215-0554 99-215-0554
Liging	ŭ	ug/l	5	12-JAN-00	EPA BZ60	99-215-0554
ine-1,3-Dichloropropens	Ŭ	us/1	Ś	12-JAN-00	EPA 8260	99-215-05949
22-Trichlorouthone	ŭ	ug/i	Š	12-JAN-00	EPA 8260	99-215-05542
Inchioroethene	Ū	ug/l	Š	12-JAX-00	EPA 8260	99-215-05542
exenone	Ū	ug/l	10	12-JAN-00	EPA 8260	99-215-0554
romothene	Ŭ	Ug/l	5	12-JAN-00	EPA 8260	99.215.0554
brobenzana	Ū	ug/l	Š	12- JAN-00	EPA 8260	99-215-0556
Bibantane	บั	ug/l	5	12-JAN-00	EPA 8260	99.215-0555
ytane/m-xytene	บ	ug/l	5	12-JAN-00	EPA 8260	99-215-655
ýl ane	Ũ	ug/l	5		EPA 8250	99-215-0554
P COA	U	ug/i	\$	12-JAN-00	EPA 8260	99-215-0556
old form	Ü	ug/l	5	12-JAN-00	EPA 8260	99-215-0354
2,2-Tetrachloroethane	Ù	ug/l	5		EPA 8260	99-215-0554

Page 2

og		NY 10262 NJ 73188 PA 68160 EPA NY 00033	Approved by:	-
KEY:	mg/L	= None Detected < = less than = milligrams per liter (equivalent to perts per million) = analyte was detected in the method or trip blank	ug/L mecograms per liter (equivalent parts part a) mg/kg milligrams per kilogram (equivalent to part )	Įφ
		<del>e la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la composition de la compos</del>		_:

The information in this report is accurate to the best of our knowledge and ability. In the event should a mailing example, Your samples will be discarded after 14 days unless we are advised otherwise.

"Our tamily naring about your analytical needs... Since 1963."



#### ONE RESEARCH CIRCLE WAVELEY, NY 1102 1532 TELEPHONE (607) acc. 3660 PAR (607) 5 - 1963

DATE 000C-KKT-0C

LAB SAMPLE ID : L44711-7

ENSR

Ron Carper 2005 Cabot Boulevard West Earghorne, PA 19047

SAMPLE, SAUBILL OPPORT

'BESICORP KINGSTON

E-WM GRAB

DUSCOUTION SAMELLEDON

11-JAN-00 16:10 by CLIENT 12-JAN-00 10:05

DATE BUY CALD  $P(\Omega, BA)$ 

N/A

				<del>-</del> ·	
Inalysis Reidomed	Result	Units	Detection Limit	Date Analyzed Hethod	Notebook Reference
			•		
				•	
* Library Rearch Compounds:	Results Units	Qual	Retention Time		
			1100		
T Burrogatic Recovery:					99-215-0554
libronofilioromethane ,	98	z z			99-215-0554
Toluene 🐯 📆	95	3			99-215-0554
4-Bromo(Querobenzene	101	X			77" [13" 0224
ANTS .					
, LPA 8270			<del></del>		
Bis(2-chloroethylether)	u	บดู/ไ	5	13-JAN-00 EPA 8270	98-051-1306-
Phenol 36	ប	υg/l	5	13-JAN-DO EPA 8270	98-051-10064
2-Chiorophenol	Ü	υg/l	5	13-JAN-DO EPA 8270	98-051-10064
1,3-Dichkorokienzene	บ	ug/l	5	13-JAN-00 EPA 8270	98-051-16061
1,4-Dichiprobenzone	ប	ug/l	5	13-JAN-00 EPA 8270	98-051-10064 98-051-10064
1,2-Dichtorobenzena	U	ug/i	5	13-JAN-00 EPA B270 13-JAN-00 EPA B270	78-051-10064
::Bie(2-chtorollicopropylether)	υ	ug/l	5	13-JAN-00 EPA 8270 0758 AQS 00-MAL-EF	98-051-10064
2-Nethyligenol	Ö	ug/l	5	13-JAN-00 EPA 8270	98-051-10064
: "-xachlojoèthane	ÿ	ug/L	3	13-JAN-00 EPA 8270	98-051-10064
ftroudir/C-propylanine	U	ug/l ug/l	ź	13-JAN-GO EPA 8270	98-051-10064
athytiphenel/4-Hethylphenel	V U	ug/l	ξ	13-JAN-00 EPA B270	98-051-10064
I trobermane	U	ug/l	Ś	13-JAN-00 EPA 8270	98-051-10064
i sophorome 1 - 2-Ni troppinoù:	U	'ug/i	5	13-JAN-00 EPA 8270	98-051-10064
2,6-Diminity) prenot	ŭ	ug/l	5	13-JAN-00 EPA 8270	98-051-16064
81s(2-chloridithoxymathere)	ŭ	ug/l	Š	13-JAN-00 EPA 8270	98-051-10664
· · · · · · · · · · · · · · · · · · ·	บี	ug/l	5	13-JAN-QO EPA 8270	98-051-10064
1,2,4-Tolchiorobenzene	ũ	ug/l	5	0758 A43 00-HAL-E1	98-351-10064
. Nachtha Lane	Ū	up/t	5	13-JAN-00 EPA 8270	98-051-10064
6-Chipromittine	Ü	Ug/l	11	13-JAN-00 EPA 8270	98-051-10064
Nemech   Sephiliad Lend	Ü	ug/l	5	13-JAN-00 EPA 8270	98-051-10064
L-Chiorogy methylphenol	ប	ug/l	11	13-JAN-00 EPA 8270	98-051-10064 98-051-10064
2-Nethylmobithe Lene	U .	ug/l	5	13-JAN-00 EPA 8270	
, Hexach carocyclopentadiene	U	ug/L	\$	13-JAK-00 EPA 8270 13-JAN-00 EPA 8270	46061-15C-89
Hexachlorocyotopentadiene 2,4,6-Trichtorophanol	U	Ug/l	5 5	13-JAN-00 EPA 8270 0758 A93 00-MAL-81	98-051-10064
: 2.4.5-felchlärochenol	Ų	υg/L	5 5	13-JAN-QO EPA 8270	9B-051-10064
2-Chloregischthalena 2-Kitroggillne	មួ	ug/l	21	13-JAN-00 EPA 0270	98-051-10064
2-Mitrounilline	U !	ug∕l ug∕l	5'	13-JAN-00 EPA 8270	98-051-10064
, )imethylybhthhlate	N N	ug/l	5	13-JAN-00 EPA 8270	98-051-10064
Acenapithytane	U	ay/ t	•		

Page 3

1					<del></del>		
İ	ic	<u> </u>	NY 10252	NJ 73168	PA 58180	EPA NY 00033	Approved by: Lab Director
	ŒY:	má/L	None Dete	par liter (eq	ulvalent to pa	se than arts per million) or trip blank	up/L = micrograms per liter localization to come per billion mayke = miligrams per kilogram (equivalent to parts per in 1 - result columated below indiquantilation local).

information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the excellent accurate to the best of our knowledge and ability. In no event shall our liability exceed the excellent samples will be discarded after 14 days unless we are advised otherwise.

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## ONE RESEARCH CIRCLE WAYERIA, NY 11602 4 6 2 TELEPHONE (607) 665-3500 PAX (607) 555 post

no no.

LAB SAMPLE ID L44711-7 20-JAN-2000

ensr Ron Carper 2005 Cabot Boulevard West Banghorne, PA 19047 SAMPLE GURBLE BESICORP KINGSTON OHERN MW-3 GRAB RESERVE THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PR SAMPLE ON 11-JAN-00 16:10 by CLIENT 12-JAN-00 10:05 nate of criven

N/A

:				Detection	Date	-	m Nanaha k
7	Analya id Parformed	Result	Unita	Limit	Analyzed	Hethod	Notebook Reference
Ĭ	3						KELGICICE
	2,6-Dinttrotolucne			_			
,	5-xitrionatting	Ü	ug/L	<u>5</u> .	00-KAL-E1	EPA 8270	98-051-10064
	Aconaphtheno	Ų	Ug/L	21	13-JAN-00	EPA 8270	98-051-10064
ì	2,4-010 trophenol	V V	ug/L	5	00-MAL-E1	EPA 8270	98-051-10064
,	Dibeniafürän	U	Ug/\	51	13-JAN-00	EPA 8270	98-051-10064
	2.4-D filtrotoluens	•	Ug/1	5	13-JAN-00	EPA 8270	98-051-10064
٠.	4-Mitrophenal	ຸນ	ug/t	5	00-HAL-ET	EPA 8270	98-051-10064
	Disthickphiholate	U	Ug/l	<b>21</b>	13-JAN-00	EPA 8270	98-051-10064
	Pluorene	U	U9/L	5	00·NAL-21	EPA 8270	98-051-10064
	4-Chilohophamyiphenyiether	Ü	ug/l	5	13-JAN-00	EPA 6270	98-051-10064
	4-Nitroeniline	Ü	U9/1	\$	13-JAN-00	EPA 8270	98-051-10064.
•	Z-Methylik, 6-dinitrophonol	U	ug/t	21	13-JAN-00	EPA 8270	98-051-10064
l	N-Ni typecoipheny i maine	U	Ug/L	<b>21</b>	13-JAN-00	EPA 8270	98-051-10064
l	4-Brokophery Lpheny Lether	Ų	ug/l	5	13-JAN-00	EPA 8270	98-051-10064
ŀ	Hexechlorobonzeno	Ü	ug/l	5	13-JAN-00	EPA 8270	98-051-10064
}	Pentagillorophonol	ÿ	υg/l	5	13-JAN-00	EPA 8270	98-051-10064
ì	Phonebthrene	U U	Ug/(	21	13-JAH-00	EPA 8270	98-05:-10064
ŀ	Anthiggeerie .	n n	up/l	5	13-JAH-00	EPA 8270	98-051-10064
i	Carbazola		ug/l	<u> </u>	13- Jan-00	EPA 8270	93-051-10054
ı	Di-neturyt phthalace	អូ	ug/l	5	13-JAN-00	EPA 8270	98-051-10064
	Fluctione	Ų	Ug/l	5	13-JAN-00	EPA 8270	98-051-10064 33
	Pyrece	U	Ug/L	5	13- JAN-00	EPA 8270	98-051-10044.8
ı	But Abburyl phthelate	ប ប	Ug/L	5	13- JAN-00	EPA 8270	98-051-10064 1 98-051-10064
	Benzina anthracene	Ü	ug/t	5	13-JAN-00	EPA 8270	98 - 051 - 10064-59
	3,3:Dichtorobenzidine	Ü	ug/(	5	13-JAN-00	EPA 8270	98-051-10066
	Chrysens	υ	Ug/L	11	73-JAX-QD	EPA 8270	98-051-10064
	Bla-Zathylhoxyl phthaloro	บ	Ug/L	\$	13-JAN-00	EPA 8270	98-051-10056
	DI-Hacery phthalate	U	ug/!	5	13-JAN-00	EPA 8270	98-051-10064
	Bonto(h) fluorenthene	U	ug/(	5	13-JAN-00	EPA 8270	98-051-10068
	Bergolky fluoranthene	y	ug/l	\$	13-JAN-00	EPA 8270	98-051-1006
	Bourne (Colorational	U	ug/l	5	13-JAN-00	EPA 8270	98-051-100645
	Indino(1,2,3-cd)pyrone	U	ug/l	5	13-JAN-00	EPA 8270	78-051-1006
	Transport - 3 - CO Prime	U	<b>19/</b> 1	5		EPA 8270	98-051-1006
	D (benza(a,h)enthracene	U	U8/1	5		EPA 8270	98-05:-1006
	Benito(y,h,1)parytene	ч	ug/l	5		EPA 8270	98-051-1006
	Emparador today at						75 57
	Extraction Information:				00-MAL-E1		99-137-142 5 7
	· 왕 * * * * * * * * * * * * * * * * * *						- 18 miles
	ita) Par						36 <del>8</del>
	36						6.45

Page 4

	<u></u>	NY 10262	NJ 73168	PA 68180	EPA NY 00033	Αμ	proved by:	for front	Director	
KEY:	mg/L	= None Dete = milligrams = analyte wa	per liter (eq	ulvalent to pe	ess than arts per million) or trip blank	ug/ka J	eulligrams be	har Flor (equivis) a Kriogram (equi est nolow the eq	valent to part of	n) Dining
The Inc	mples w	i In this report i Ili be discards	is accurate to after 14 d	the best of aye unless w	our knowledge and	l ablity. In a ;				5017

caring about your analytical needs ... Since 1963." Jan 20 2000 17:22

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## ONE RESEARCH CIRCLE WAVERLY, NY 19892 1 441 TELEPHONE (607) 565-3508

PAS (607) 565 (88)

DAH

20-JAN-2000

LAB SAMPLE ID

L44711-7

ener Ron Carper 2805 Cabot Boulevard West Langhorne, PA 19047

SAMPLE SPERICE CHREIM NORTHROBERO SAMPLE OF

BATH PERLIVED

BESICORP KINGSTON E-WM GRAB

11-JAN-00 16:10 by CLIENT 12-JAN-00 10:05

N/A

Notebook Data Detection Analyzed Reference Method Uni ts nelyale Heritonned Result Limit

								•		
		Mitarch: Compos	unda;		Results	Units	Qual	Retention Time		
•	Unknown			57	ug/l	1	12.62			
1	Surroget Ferchery 2-Fluore Phenol-1 2,4,6-Te Mitrobet 2-Fluore	Récovery: (1-d14 ptienel Fi discisophenel (2-dis-d5 biphenyl		67 36 23 59 59 60		X				78-051-10064 98-051-10064 98-051-10064 98-051-10064 98-051-10064 98-051-10064
1 .	A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA									
	等 计图象识别	·				Pnge	5	————	~~	

ì **EPA NY 00033** Approved by: PA 68160 NY 10252 NJ 73168

J\Qu = less than ND or U = None Detected < = milligrams per liter (equivalent to parts per million) ma/kg mg/L = analyte was detected in the method or trip blank

for (equivalent to parts par incoograms cer enfligrams per villagram (equive not to parts result estimated ballow the new motion of the

information in this report is accurate to the best of our knowledge and ability. In the prent short of maily example. our samples will be discarded after 14 days unless we are advised otherwise.

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ONE RESEARCH CIRCLE WAVERLY, NY 1880 1882 TELEPHONE (607) 505-3500 PAX 1607 COS TOCK

LAB SAMPLE ID

L44711-B

ensr Rom Carper 2005 Cabot Boulevard West Langhorne, PA 19047

20-JAN-2000

SAMPL GOURCE । मोस्रीमर ULBOHILLHON SAMITED ON DAD BESGLYCE

Palaij

BESICORP KINGSTON FIELD BLANK 1/11/00 **GRAB** 

11-JAN-00 16:35 by CLIENT 12-JAN-00 10:05

DATE

N/A

olyala Parformed	Result	Units	Detection Limit	Date Anolyzed	Hethod	Hatebook Reference
		•				
enide jarai	U	mg/l	0.01	19-JAN-80	EPA 335.3	99-003-72
uni nuniti	U	mg∕t	0.075	DO-HAL-91	EPA 6010	99-227-02
timony	ŭ	ing/l	0.050	19-MAL-91	EPA 6010	99-227-02
rium 👸	0.073	mg/l	0.016	19-JAN-00	EPA 6010	99-227-02
rylltun	U	mg/l	0.002	19- JAK-00	EPA 6010	99-227-02
in i un	U	mg/t	0.0050	19- JAN-00	EPA 6010	99-227-02
clun	55.1	mg/l	0.500	19-JAN-00	EPA 6010	99-227-02
on luis.	U	mg/l	0.010	19-JAN-00	EPA 6010	99-227-02
alt 🎚	υ	mg/l	0.010	19-JAN-00	EPA 6010	99-227-02
per 👸	V	mg/l	0.017	19- JAN-00	EPA 6010	99-227-02
n 💥	0.076	mg/t	0.040	19- JAN-00	EPA 6010	99-227-02
<b>1</b>	0.001	mg/l	0.001 .		EPA 7421	
nes (ille:	. 10	mg/l	0.500	19-JAN-00	EPA 6010	99-227-02
ganasii	0.017	mg/l	0.005	19-JAN-00	EPA 6010	99-227-02
kei 🚉	U	mg/l	0.012	19-JAN-00	EPA 6010	99-227-02
aas (un)	1.36	mg/l	0.500	19-JAN-00	EPA 6010	99-227-02
vor 🎉	U	mg/l	0.010	19-JAN-00	EPA 6010	99-227-02
lun 🐰	20,1	mg/l	0.200	19-JAN-00	EPA 6010	99-227-02
Etiung:	ŭ	mg/l	0.001	19-JAH-00	EPA 7841	98-202-6

Page 1

NY 10252

NJ 73168

PA 58180

**EPA NY 00033** 

Approved by:

ND or U = None Detected

Ψ:

< = less than ug/1 ៣១/ឥថ្វ  micrograms per liter (equivalent to party per beign milligrams per kilogram (inquivatent to pains per mi

mg/L = milligrams per liter (equivalent to parts per million) = analyte was detected in the method or trip blank

result astonaled below the quantitation on t

also information in this report is accurate to the best of our knowledge and ability in no event shall our liability exceed the case are nessered. our samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs... Since 1963."



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## ONE RESEARCH CIRCLE WAVERLY, NY 1982 602 TELEPHONE (607) 565-3500

PAN (607) 565 (68

LAB SAMPLE ID

L44711-8

Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE SCHALE OHIGH DESCRIPTION SAMPLEFOR DATE HECH WED

20-JAN-2000

BESICORP KINGSTON FIELD BLANK 1/11/00 GRAB

11-JAN-00 16:35 by CLIENT

- 1

12-JAN-00 10:05

9510

()	14.1	N/
()	. 1. 1	N/

					magnitude and the second		
Lysis Performed	Result	Units	Detection Limit	Date Analyzed	Hethod	Notebook Reference	
\$							
ndlun (i.)	U	mg/l	0,010	19-JAN-00	EPA 6010	99-227-02	
c 🦹	0.026	mg/l	0.020	19-JAH-00	EPA 6010	99-227-02	
8260							
orconichana	บ	ug/l	5	12-14K-00	EPA 8260	99-215-05	
yl chloride	ŭ	ug/l	2	12-JAN-00	EPA 8260	99-215-05	
oroespane.	ũ	Ug/l	5	12-JAN-00	EPA 6260	99-215-05	
monet Menù.	บั	ug/l	5	12-JAN-00	EPA 8260	99-215-05	
-Digitoroethene	Ŭ	ug/l	5	12-JAN-00	EPA 8260	99-215 <b>-</b> 05	
Tone	บั	ug/l	25	12-JAN-00	EPA BZOO	99-215-05	
bon straulfido	ŭ	ug/l	5	12-JAN-00	EPA 8260	99-215-05	
hytela chiloride	Ü	ug/l	5	12-JAN-00	EPA 8260	99-215-05	
ns-le 2: Dichtoroethene	Ú	ug/l	5	00-KAL-S1	EPA 8260	99-215-05	
-Dickloroethane	Ū	ug/l	5	12-JAN-00	EPA 8260	99-215-05	
-1,250 chloroethene	บ	ug/l	5	12-JAR-00	EPA 8260	99-215-05	
hyldethyl ketone (2-Butanone)	Ü	ug/t	25	12-JAN-00	EPA 8260	99-215-05	
orestore	Ü	Ug/l	5	12-JAN-00	EPA 8260	99-215-05	
.1-1r ichloroethene	บั	ug/l	5	90-MAL-S1	EPA 8260	99-215-05	
bonk tetrachloride	Ü	υg/l	5	12-JAH-00	EPA 8260	99-215-05	
Zura	บั	ug/l	0.7	12-JAK-00	EPA 8260	99-215-05	
-Bichloroethens	U	ug/l	5	12-JAN-00	EPA 8260	99-215-05	
chloroethene	Ü	Up/l	5	00-XAL-S1	EPA 8260	99-215-05	
-Dichloropropens	U	Ug/L	5	12-JAN-00	EPA 8260	99.215.05	
modichi orone there	U	ug/(	5	00-MAL-S1	EPA 8260	99-215-05	
- 授3:Dichtoropropene	บ	ug/t	5	12-JAN-00	EPA 8260	99-215-05	
hal isobutyl ketone	U	ug/(	10	12-JAN-00	EPA 8260	99-215-05	
uene:	U	ปฐ/ไ	5	00-HAL-S1	EPA 8260	99-215-05	
ne 3-0 ich Loropropens	U	ug/L	5	12-JAN-00	EPA 8260	99-215-05	
Zitifchloroethane	U	ug/L	5	12-JAN-00	EPA 8260	99-215-05	
ractiforosthere	ប	ug/t	5	12-JAN-00	EPA 8260	99-215-05	
extencio	U	ug/l	10	12- JAN-00	EPA 8260	99-215-05	
chipochi o rome cheno	U	ug/l	5	12-JAH-00	EPA 8260	99-215-0	
arpbentone	ษ	ug/l	5	00-KAL-S1	EPA 8260	99-215-05	
yabenzene	ט	ug/l	5	00-NAL-S1	EPA 8260	99-215-05	
ýtaném-Xylone	U	ug/l	5	00-KAL-S1	EPA 8260	99-215-05	
i karie	ช	ug/(	5	00-KAL-S1	EPA 8260	99-215-05	
raine	ប	nB\r	5	12-JAN-00	EPA 8260	99-215-05	
מושל שלים	บ	ug/l	5	00-KAL-51	EPA 8260	99-215-05	
72,2-Tetrachi orosthano	u	ug/l	5	12-JAN-0D	EPA B260	99-215-05	

Page 2

EPA NY 00033 Approved by: PA 68180 NY 10252 NJ 79168 ug/L reicograms por after (equivalent in parts pe < = less than ND or U = None Detected milligrams per singram (eq. 45 etc to part = milligrams per liter (equivalent to parts per million) mg/kg mg/L result estimated delow the consecution in = enalyte was detected in the method or trip blank Similarmetion in this report is accurate to the best of our knowledge and ability. In the event shall on the edition in this report is accurate to the best of our knowledge and ability. In the event shall on the edition in this report is accurate to the best of our knowledge and ability. In the event shall on the edition in this report is accurate to the best of our knowledge and ability. arvic \$9 T

or samples will be discarded after 14 days unless we are advised otherwise.



## ONE RESEARCH CIRCLE WAVERLY, NY 14892 1552 TELEPHONE (607) 565-3500 PAN (607) 567 (98);

LAB SAMPLE ID

Langhorne, PA 19047

Ren Carper 2005 Cabot Boulevard West

L44711-8

SAMPU SOMEOE ONGH DESCRIPTION SAMPLED CH DATE HELL WED

20-JAN-2000

BESICORP KINGSTON FIELD BLANK 1/11/00 GRAB

11-JAN-00 16:35 by CLIENT 12-JAN-00 10:05

PDR

N/A

	Rerformed	Result	Detection Limit	Date Analyzed	Notebook Reference
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			<del></del>	<del></del>	

	urrogate Recovery:		•			
	) ibromoff porome than e	102	x			00 DIF erro
	Tol uence 18	99	$\hat{\mathbf{x}}$			99-215-0552
	-Bronof Zuorobenzene	íói	Ş.			99-215-0552
		•••	^			99-215-0552
i	EPA 5270					
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•	-Bis(Z-cliforoethylether)	บ	ug/(	6	13-JAN-00 EPA 8270	98-051-10065
	Phenot 2	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
i	2-Chiorymanol	v	ug/t	6	13-JAN-00 EPA 8270	98-051-10065
٠	1,3-Dichtoropenzena	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065 :
	1,4-Diolitorobenzene	v	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
,	1.2-Dichtorobenzena	u	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
i	81s(2-citoralsopropylether)	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
_	2-Methy Chariol	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
•	Hoxach for catherie	U	ug/t	6	13-JAN-00 EPA 8270	98-051-10065
	N-Mitragod -N-propylemine	U	ug/{	6	13-JAH-00 EPA 8270	98-051-10065
٠,	. 3-Nethylphenol/4-Nethylphenol	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
	XI trobenzana	V	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
	Isopharspe	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
•	2-Hitcophanol	U	ug/l	6	13-JAN-00 EPA 8270	78-051-10065
	2,4-0 (morhy) phenot	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
:	Bie(2-chilocoethoxymothune)	Ü	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
	2,4-Dictilarophenol	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
	1,2,443cfchlorobenzene	ป	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
•	Naphthalland 4-Chlogoniline	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
•	4-Chicipanti ine	U	ug/L	11	13-JAN-00 EPA 8270	98-051-10065
	Mexects or abuted lene	U	49/1	ė	13-JAN-00 EPA 8270	98-051-10065
	4-Chtogos Streethylphenol	v	Ug/l	11	13-JAN-00 EPA 8270	98-051-10065
i	2-Methylmophthalano	บ	ug/l	6	13-JAN-DO EPA 8270	98-051-10065
	Hexacilitrocyclopentedione	U	Ug/1	6	13-JAN-00 EPA 8270	98-051-10065
,	2,4,697, Tchilorophenol	υ	ug/l	6	13-JAH-00 EPA 8270	98-051-10045
ł,	2,4,5 Trichlorophenol	U	ug/l	6	13-JAN-00 EPA 8270	98-051-10065
	2-Chipromephthalene	ช	ug/l	6	13-JAN-00 EPA 8270	78 • 05 1 • 10065 • 1
	2-Ni trioch (11 ne	U	ug/t	23	13-JAN-00 EPA 8270	98-051-10045
	Dimethyl phthalate	U	Ug/(	6	13-JAN-DO EPA 8270	98-051-10065
	Acongphiliplene	บ้	ug/l	6	13-JAN-00 EPA 8270	98-051-10063
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Page 3

QC N	NY 10252 NJ 73168 PA 66180 EPA NY 00033	Approved by: free Lab Engons	
KEYO ND or U mg/L	= None Detected < = less than = milligrams per liter (equivalent to parts per million) =;analyte was detected in the method or trip blank	lig/L immorgrams per later requivalent to a vita participality materials per later from the guardian continuation of the participal transfer of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of the continuation of th	No.
	In this report is accurate to the best of our knowledge and it be discarded after 14 days unless we are advised otherw		loos

"Our family carino about your analytical needs... Since 1963."

95.9

Jan 20 2000 17:24

ONE RESEARCH CIRCLE TELEPHONE (607) 585-3560

WAYERLY, NY 14802-1-07. FAN (607) 565 5685

LAB SAMPLE ID : L44711-8

Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE HARME ORIGIN Descriptions SAMPLED ON OATE HEREINTO Pro 180

BESICORP KINGSTON FIELD BLANK 1/11/00 GRAB

11-JAN-00 16:35 by CLIENT 12-JAN-00 10:05

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20-JAN-2000

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Langhorne, PA 135	•	l			
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		•							The River	1
	1.10		NY 10262	NJ 73168	PA 68180	EPA NY 00033		OYUG DY:OT	Leti Greetet	75 50° 1
_	- T	ND or U	- None Del	ected per liter (ec	nivalent to P	ess than arts per million) i or trip blank	ng/kg	result estimator o	elian the que like "	pare e
	3	₿.	analyte w			t out knowledge an	s ability. In no	event shall out the		

The intermation in this report is accurate to the best of our knowledge and ability. In no even shall out the executive of the best of our knowledge and ability. In no even shall out the executive of the best of our knowledge and ability. Your samples will be discarded after 14 days unless we are advised otherwise.



ONE RESEARCH CIRCLE WAVERLY MY 1989; 1 11 TELEPHONE (607) MISSISSON FAA (897) 50% (68)

LAB SAMPLE ID

L44711-8

ITAL 20-JAN-2000

ENSR Ron Carper

2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE DOPINGE CHMbet DESCRIPTION SAMPLE ON DATE DECLIVED

BESICORP KINGSTON FIELD BLANK 1/11/00 GRAB

11-JAN-00 16:35 by CLIENT 12-JAN-00 10:05

N/A

23	R .							~ ~ .	****
nelyeisi	erformed	Repr	ılţ	Units	Detec: Limit	tion	Date Analyzed	Hethod	Notebook Reference
ibrary ta	arch Compounds:		Results	Units	Jaup	Retention Time	•		
nknoun	•	66	ug/l	j	12.62				
Terphony(+) -F(uoroph) -henol-idl 2,4,6-Titlb M(trobetica 2-F(uoroph)	d16 enot nomopheno l	64 41 29 73 65 64		% % % % %					98-051-10065 98-051-10065 98-051-10065 98-051-10065 98-051-10065 98-051-10065

Page 5

NY 10252 NJ 73188 PA 68160 **EPA NY 00033** 

tab Diebare

ND or U = None Detocted ₩ mg/L

< = loss than = milligrams per liter (equivalent to parts per million) = analyte was detected in the method or trip blank

ügiL mg/kg

grams per Etal (equivalent in ports per 5 miliagrams per si logram (equivalent) is parts at month estimated below the quarter

The information in this report is accurate to the best of our knowledge and ability. In no event shall our use my exceed the Your samples will be discarded after 14 days unless we are advised otherwise

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"Our family caring about your analytical needs ... Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 418011-82 TELEPHONE (807) 565-3500 FAX office its 1083

DATE

30~1VN-3000

LAB SAMPLE 10

L44711-9

Ron Carper 2005 Cabot Boulevard West Sanghorne, PA 19047

SAMPLE DOUBLET OBIG01

DESCRIPTION BAMILL II ON

DATE HELLIYER

FRIEND LABORATORY, INC. 95-045-93-20

TRIP BLANK

11-JAN-00 00:00 by FLI/88 12-JAN-00 10:05

- N/A

nalyals:Portormed	Result	Unite	Detection Limit	Date Analyzed	Method	Notebook Reference
5:						
	•					
PA 8260(4					· · · · · · · · · · · · · · · · · · ·	· • · · · · · · · · · · · · · · · · · ·
n Loronic Coane	บ	ug/l	5	12-JAH-00	EPA 8260	99-215-055
inyl obloride	ยั	ug/l	ž	12-JAN-00	EPA 8260	99-215-055
loroethone	Ū	ug/l	5 .	12-JAN-00	EPA 8260	99-215-05
peopetiane	ũ	Uø/l	Š	12-JAH-00	EPA 8260	99-215-055
1-01chtoroethens	Ū	up/t	5	12-JAH-00	EPA 8260	99-215-05
.geno7e	Ū	Ug/(	25	12-JAN-00	EPA 8260	99-215-055
rbon disuffide	Ū	Ug/l	5	12-JAH-0D	EPA 8260	99-215-055
thyleni chlaride	Ù	Ug/l	5	12-JAN-0B	EPA 826D	99-215-055
ens-1,2:0 chloroethane	· U	ug/l	5	12-JAH-00	EPA 826D	99-215-055
1-Diantoraethene	Ū	ug/l	5	12-JAN-00	EPA 8260	99-215-059
s-1.2-3 aniloroctheno	U	ug/l	· 5	12-JAN-00	EPA 8260	99-215-05
thyl sthyl ketone (2-hutanone)	ប	ug/l	25	00-KAL-S1	EPA 8260	99-215-059
loroform	υ	ug/l	5	00-KAL-S1	EPA 8260	99-215-05
1,1-Tetchiuroethene	U	ug/l	5	12-JAX-00	EPA 8260	99-215-055
rbon tetrechloride	U	ug/l	5	12-JAN-00	EPA 8260	99-215-65
กรอกอาโ	ช	ug/l	0.7	12-JAN-00	EPA 8250	99-215-059
.2-Dichlorgethene	บ	บg/โ	5	00-HAL-S1	0928 A43	99-215-055
Ichiococthene	Ü .	ug/l	5	00-NAL-S1	EPA 8260	99-215-05
2-Dichloropropens	Ū	ug/t	5	12-JAH-00	EPA 8260	99-215-05
2-Diction opropens	Ú	Up/l	5	12-JAH-00	EPA 8260	99-215-05
s-1.3-Archipropropene	υ	Ug/l	5	12-JAH-00	EPA 8260	99-215-05
ethyl wobutyl ketone	Ü	ו/פֶע	10	12-JAH-00	0928 Vd3	99-215-05!
olume (A.C.)	U	ug/l	5	12-JAN-00	EPA 8260	99-215-05
rans-1/3-Dichloropropene	U	ug/l	5	12-JAN-00	EPA 8260	99-215-05
1,2-Tigichtorosthane	Ŭ	ug/l	5	12-JAN-00	EPA 8260	99-215-05
trachtorgethene	บี	ug/l	5	12-JAX-90	EPA 8260	99-215-05
Hexandhe	Ū	ug/l	10	12- JAN-00	EPA 8260	99-215-05
bronoghtocomethene	U	Ug/l	5	00-HAL-SI	EPA 8260	99-215-05
lorobenzene	U	ug/t	5	12-JAH-00	EPA 8260	99-215-05
hylbeneene	ប	ug/t	5	00-KAL-51	EPA 8260	99-215-05
Xylen@n-Xylene	U	ug/l	5	12-JAX-00	EPA 8260	99-215-05
Xylene	U	UQ/\	5	12-JAH-00	EPA 8260	99-215-05
tyrene	U	ug/L	5	00-HAL-ST	EPA 8260	99-215-05
ronoform	Ū	ug/L	5	00-HAL-51	EPA 8260	99-215-05
.1,2,25(etrechloroethene	Ū	սը/Լ	5	12-JAH-00	EPA 8260	99-215-05

Page 1

PA 58180 **EPA NY 00033** Approved by: NY 10252 NJ 73168 Lat Directo micligrams per liter teravatent to come per belief ND of U = None Detected ug/L < = less than = milligrams per liter (equivalent to parts per million) រពព្វ/kg militagrams per fillogram (equivalent to parts per m mg/L result estimated below the quantital in 1 hit = analyte was detected in the method or trip blank

information in this report is accurate to the bost of our knowledge and ability. In no event shall our fiable by exceed the are of there are samples will be disparded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs... Since 1963."



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ONE RESEARCH CIRCLE WAVERLY, NY 115 11 1532 TELEPHONE (607) 553-3500 FAX 1807; 657 1983

LAB SAMPLE ID

L44711-9

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE BOURCE OHING'N DESCRIPTION BAMES! 9 ON

20-JAN-2000

FRIEND LABORATORY, INC. 95-045-93-20

TRIP BLANK

DATE

11-JAN-00 00:00 by FLI/BB 12-JAN-00 10:05

برونو: آخر

DATE SECURIVED

Progression N/A

· Y 💮				<del></del>	Detection		•=	n
Analysis			Result	Units	Limit	Date Analyzed	Kethod	Notebook Reference
	earch Corpola	nda:	Results Units	Qual	Retention Yime			
	. •							
Surrogate	Recovery:	•	102	•				00 005 0054
Tolueness	Recovery: Cottonothene Bi	ર્ત	98 103	X X X				99-215-0551 99-215-0551 99-215-0551
			103	~				44-512-0331
- <b>3</b> €								
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	-			Page 2				
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QC	45 152 162	NY 10252 NJ 73168	PA 88180 E	PA NY 00033	Approved by:	Lan Oliniar
KEY:	mg/L	None Detected milligrams per liter (c analyte was detected	, , ,	er million)	mg/kg 😘 mdograms po	per little (usualvalent tri norre per chilip or kilogram (equivalem ta curts per c led be over the opacital into mit

The Information in this report is accurate to the best of our knowledge and ability, in no event shall our liability exceed too. Your samples will be discarded after 14 days unless we are advised otherwise.

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ONE RESEARCH CIRCLE WAVERLY, NY 1989, 1992 TELEPHONE (607) 565-3509 FAX (607) 565 4083

LAB SAMPLE 10 L44711-2 DAH

20-JAN-2000

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**©88**.

Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

SAMPLE SUIDACE ODIGIN DESCRIPTION SAMPLED ON DATE RECEIVED

BESICORP KINGSTON SED-1/0.0-0.5 GRAB

11-JAN-00 12:35 by CLIENT 12-JAN-00 10:05

N/A

PO ta)

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ielysis	Estformed	Result	Unita	Detection Limit	Data Analyzed	Hethod	Notebook Reference
/enide;	rotal	U	mg/kg	0.689	14-JAN-00	EPA 335.3	99-003-71
otal so	jida	69.2	×		00-MAL-E1	CLP 3.0	97-070-247
ในกรักษา		8920	mg/kg	10.0	19-JAN-00	EPA 6010	99-227-02
whitenony	2 1	7.74	mg/kg	6.67	19-JAN-00	EPA 6010	99-227-02
, Arsenic		U	mg/kg	16.0	19-JAN-00	EPA 6010	99-227-02
arius 🥞		139	ng/kg	2.13	19-JAN-00	EPA 6070	99-727-02
Boryille		0.335	mg/kg	0.267	19-JAN-00	EPA 6010	99-227-02
Schriften (	•	U	mg/kg	0.6670	19-JAN-00	EPA 6010	99-227-02
Calcium		36100	mg/kg	66.7	00-NAL-97	EPA 6010	99-227-02
Chromium		22.7	mg/kg	1.33	19-JAN-00	EPA 6010	99-227-02
-bei t		8,99	mg/kg	1.33	19-JAN-00	EPA 6010	99-227-02
-copper 3		13.8	mg/kg	2.27	19-JAN-00	EPA 6010	99-227-02
Iron 🖟		16400	ng/kg	5.33	19-JAN-00	EPA 6010	99-227-02
Leed 3	·	41.1	mg/kg	5.87	19- JAN- DO	EPA 6010	99-227-02
Negnes (y	₽ ·	2870	rog/kg	66.7	19-JAN-00	EPA 6010	99-227-02
Nensurica	•	4800	mg/kg	13.3	19-JAN-00	EPA 6010	99-227-02
		wa a	.1		10 1411 00	4n4 4n4n	
Hickel	•	39.2	ng/kg	1.60	19-JAN-00	EPA 6010	99-227-02
i Potesella	1	746	mg/kg	66.7	19-JAH-DO	EPA 6010	99-227-02
8elan (ta)		ប	mg/kg	190	19- JAN-DO	EPA 6010	99-227-02
51 (verg		บ	mg/kg	1.33	19- JAN-00	EPA 6010	99-227-02

Page 1

Approved by: NJ 73188 PA 68180 **EPA NY 00033** NY 10252 Lab Cirector micrograme per liter (equivalent in ports per b = lees than

ug/L < ND or U = None Detected milligrams per kilogram (equivoloris to parts par = milligrams per liter (equivalent to pans per million) mg/kg mg/L result estimated bullow the quantitation haut = enalyte was detected in the method or trip blank

from the fire the report is accurate to the best of our knowledge and ability. In no event shall our satisfity exceed the contraction in this report is accurate to the best of our knowledge and ability. In no event shall our satisfity exceed the contraction in the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of Your samples will be discarded after 14 days unless we are advised otherwise.



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Rom Carper

### ONE RESEARCH CIRCLE WAVERLY, NY 1982 1982 TELEPHONE (607) SES-HAUD FAX (607) 565, 1687

LAB SAMPLE ID

2005 Cabot Boulevard West

Langhorne, PA 19047

L44711-2

SAMPLE SUURCE OHIGIN **BESCRIPTION** SAMPLED ON

20-JAN-2000

BESICORP KINGSTON SED-1/0.0-0.5

GRAB

HAG

11-JAN-00 12:35 by CLIENT

DATE RECEIVED 12-JAN-00 10:05

PO 187

IN/A

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notyste Sentamed	Result	Units	Detection Limit	Date Analyzed Hethod	 Natebook Reference
dien 🔐	176	mg/kg	26.7	19-JAN-00 EPA 6010	<del>99-</del> 227-02
oll (un	u	ng/kg	8,67	19-JAM-00 EPA 6010	99-227-02
nedtur	18.1	mg/kg	1.33	19-JAN-00 EPA 5010	
nc A	427	ng/kg	2.67		99-227-02
A 6260	767	ING/ KU	2,01	19-JAN-00 EPA 6010	99-227-02
Loromethica	U	ug/kg	7	18-JAN-00 EPA 8260	
nyl chioride	υ	ug/kg	,	18-JAN-00 EPA 8260 18-JAN-00 EPA 8260	99-214-9623 99-214-9623
Loroethere	u	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
Oreometherie	Ų	ug/kg	7	18-JAN-00 EPA 8260	99-214-9523
1-Dichtoroe etonakt	n	Ug/kg	7	0658 A93 00-KAL-81	99-214-9623
rbonistsulfide	U U	ug/kg	36	18-JAN-00 EPA 8260	99-214-9623
thylene tilorise	U	ug/kg	7 7	18-JAN-00 EPA B260	99-214-9623
ma-122-Dichloroethene	Ü	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
I-Dichiocoethane	ชั	ug/kg ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
-1.20 Chioroothene	บ	Ug/kg	7	1B-JAN-00 EPA 8260 18-JAH-00 EPA 8260	99-214-9623
thyle this ketone (2-Bucanone)	ŭ	na/ka	36	18-JAH-00 EPA 8260 18-JAN-00 EPA 826D	99-214-9623
orotorp.	ŭ	ug/kg	7	18-JAN-00 EPA 8260	99-214-7623
1,1-121chloroethene	บ -	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
bon tachiorido	Ü	ug/kg	7	18-JAN-00 EPA 8260	99·214·9623 99-214·9623
nzene.	U	ug/kg	1	18-JAN-00 EPA 8260	99-214-9623
2-Digitorpothene Ichloronthene	U	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
	Ų	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
2-Digitoropropana modiciloromethana	U 	ue/kg	7	18-JAN-00 EPA 8260	99-214-9623
occupatoromethano 1-1/2-01ch Loropropena	บ	Ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
chylinepricyl katone	ឋ ប	ug/kg	7.	18-JAN-00 EPA 8260	99-214-9623
Lung!	ย	ug/kg	14	18-JAN-00 EPA 8260	99-214-9623
ns 3.3-01chi oropropene	D.	ug/kg ug/kg	7 7	18-JAN-00 EPA 8260	99-214-9623
, 2 Frich loroethane	บ	ug/kg ug/kg	7	18-JAN-00 EPA 8260 18-JAN-00 EPA 8260	99-214-9623
tracificorporhena	Ū	ug/kg	7	18-JAN-00 EPA 8260 18-JAN-00 EPA 8260	99-214-9623 99-214-9623
loxecone	ŭ	ug/kg	14	18-JAN-00 EPA 8260	99-214-9623
orollech loromethene	บ	Ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
Officerane	Ų	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
yliterizana	U	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
ylalio za Xyl eno	U	ug/kg	7	18-JAN-OD EPA 8260	99-214-9623
ylme	U	ug/kg	7	18-JAN-00 EPA 8260	99-214-9623
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F.					
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			ب يو پيونواليسدوند سپوره د	11 11	آست نے بوہی ورست د
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ig .	PA 68180 EF	PA NY 00033	Approved	by:	
	PA 68180 E	PA NY 00033	Approved	LAD DIEG	ster 3
NY 10252 NJ 73168				Lab Direct	Ante par
NY 10252 NJ 73168  ND or U = None Detected	< = 1038 th	nan	ug/L mict	Lab Direct	outs par v
NY 10252 NJ 73168	<pre>&lt; = less th </pre>	nan per million)	ug/L micr mg/kg mith	Lab Direct	buts parts of appropriate

Lab Director	00	NY 10252	NJ 73168	PA 68180	EPA NY 00033	Approved by:	Man 19 1
VEVE Month - Name Detected and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	VEVG ND!!					Approved by San Jan	Lab Director

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The information in this report is accurate to the best of our knowledge and ability. In no event shall our bushing exceed the limit of the Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family caring about your analytical needs . . . Since 1963."



#### ONE RESEARCH CIRCLE WAVERLY, NY 14890-1542 TELEPHONE (807) 565-3600 FAX (607) 565 1083

LAB SAMPLE 10

:L44711-2

ENSR Ron Carper 2005 Cabot Boulevard West Danghorne, PA 19047

ŨΛΠ 20-JAN-2000

SAMPLE SOURCE BESICORP KINGSTON CHRISM OFSCRIPTION

SED-1/0.0-0.5

GRAB

SAMPLET ON DATE RECEIVED 11-JAN-00 12:35 by CLIENT 12-JAN-00 10:05

N/A P () 780

· <u>课</u> · · · · · · · · · · · · · · · · · · ·			Detection		Date	Natebook	
nelysis formed	Result		Units	Limit	Analyzed	Hethod	Reference
	u		ug/kg	7	00-KAL-81	EPA 8260	99-214-9623
Styrene (2). Promofolie: (-	บ		ug/kg	7	18-JAH-00	EPA 8260	99-214-9623
1,1,2,2-Ketrachloroethane	ŭ		ug/kg	7	00-HAL-81	EPA 8260	99-214-9623
Ibrary Search Compounds:	Results	Units	Quel	Retention Time			
ankmorani en	9	ug/kg	J	5.3			
inknoving:	15	ug/kg	j	20.79			
unknown &	58	ug/kg	j	21.88			•
entosejá fecovetas	***		_				99-214-9623
fbrom Rushom thene	114		X				99-214-9623
toluenésia 4-Brownfluorobenzone	114 160 -		Ž.				99-214-9623
unalysis Comment: Dry weight basis.*80		overy ou	t high.Inte	rnal stendard 4	out low.		,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
PA 8082			<del></del>	<del>, , , , , , , , , , , , , , , , , , , </del>	<del></del>		
PCB 1018	ប		ing/kg	0.13	00-KAL-81	EPA 8082	99-108-3567
PCB 1221	U		mg/kg	0.27	18-JAH-00	EPA 8082	99-108-3567
PCB 1252 PCB 1242	U		mg/kg	0.13	18-JAN-00	EPA 8082	99-108-3567
PCB 1242	U		ng/kg	0.13 0.13	00-KAL-81 00-KAL-81	EPA 8082 EPA 8082	99-108-3567 99-108-3567
PCB. 1248	<b>0</b>		mg/kg mg/kg	0.13	18-JAN-CO	EPA 8082	99-108-3567
PCB 1254 PCB 1260	Ü		ud\ka	0.13	18-JAN-00	EPA 8082	99-108-3567
Extraction informations					12-JAN-00		99-154-152
Surrogite-Recovery: Decachiocolpheny	108	4	×				99-108-3567
Analysis Comment: PCB results ere colo EPA 8270	e no cotatus	ary we	gne puers.				
55.5				340	14-JAN-00	EPA 8270	98-051-1007
Bia(2-chiloroethylether)	V U		υg/kg υg/kg	340 340	14-JAN-00	EPA 8270	98-051-1007
Phenot: 2-Chibrophenol	11		na\ra	340	14-JAN-00	EPA 8270	98-051-1007-
1.3-bithlarobenzene	ŭ		ug/kg	340	14-JAN-00	EPA 8270	98-051-1007
i,3-pachtoroomzene i,4-pächtorobenzene	ŭ		ug/kg	340	14-JAN-00	EPA 8270	98-051-1007
1,2-03chtorobenzene	ŭ		ug/kg	340	14-JAH-00	EPA 8270	98-051-1007
F. 2-Machiologiscopropylether)	ŭ		ug/kg	340	14-JAN-00	EPA 8270	98-051-1007
2-Methy spilenol	ŭ		ug/kg	340	14-JAH-00	EPA 8270	9B-051·1007
· (12)	-						

Page 3

7.6								-
QC.		NY 10252	NJ 731 <b>6</b> 8	PA 66180	EPA NY 00033	Appr	ovec ov: Lab O incini	ج دجیسہ د د د د
KEY	r₁B mg/L	=: analyte w	s per liter (e: es detactod	quivalent to p in the method	ies then arts per million) or trip blank	ug/L ing/kg	miclograms per their (equivalent to parts per bi- milligrams per wiegram (equivalent to parts co- result estimated below the quantitation limit	-
The vin	lormation amples w	in this report	la accurate ed after 14	to the best of days unless w	f our knowledge and o ere advised other	r ubilliy. Is no wiso.	event shall our liability exceed the limit of the	λo



#### ONE RESEARCH CIRCLE WAVERLY, NY 19802 1562 TELEPHONE (607) 505-3500 FAN (007) 565 tosa

LAB SAMPLE ID

Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

L44711-2 ·

DATE 20-JAN-2000

SAMPLE SOURCE CRIGH DESCRIPTION

BESICORP KINGSTON SED-1/0.0-0.5

GRAB SMATTER ON

11-JAN-00 12:35 by CLIENT 112-JAN-00 10:05

ricos

DATE RECEIVED

N/A

alysia Performed	Result	Units	Detection	Date		Notebook
483	KCOULL	00113	Limit	Analyzed	Method	Reference
kach Ligipathane	U	ug/kg	340	44 .44 .44	<b></b>	
Nitroppeli - N-propyl amina	บั	ug/kg	340 340		EPA 8270	98-051-108
Hethylphenol/4-Hethylphenol	ŭ		340 340	14-JAN-00	EPA 8270	98-051-100
trobertzete	ŭ	Ug/kg			EPA 8270	98-051-100
ochar Gre	ŭ	ug/kg	340		EPA 8270	98-051-100
(ftroppenol	บั	ug/kg	340		EPA 8270	98-051-100
-Dimethylphenol	_	ug/kg	340	14-JAN-00	EPA 8270	98-051-100
(2-chloroethoxymethene)	u.	ug/kg	340	14-JAN-00	EPA 8270	78-051-100
-Dich prophenol	Ų	ug/kg	340	14-JAH-00	EPA 8270	98-051-100
4-Telchiorobenzene	Ü	ug/kg	340		EPA 8270	98-951-100
an thankens	U	ug/kg	340		EPA 8270	98-051-100
hlokpenfijos	Ü	ug/kg	340		EPA 8270	98-051-100
ech probuted one	น	ug/kg	680		EPA 8270	98-051-100
hiord 3-methylphenol	U	ug/kg	340		EPA 8270	98-051-100
other with the lene	Ų	ug/kg	680		EPA 8270	98-051-100
entring the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control o	U	ug/kg	340		EPA 8270	98-051-100
ucitigrocyclopentediene	U	ug/kg	340		EPA 8270	98-051-100
.6-13 chtarophenol	U	ug/kg	340		EPA 8270	98-051-100
5-Trichtorophanol	U	Ug/kg	340		EPA 8270	
hlomaphthaleno	ប	Ug/kg	340		EPA 8270	98-051-100
itraeniline	U	ug/kg	1400		EPA 8270	98-051-100
eth); pithalata napitayione -Digitrotoluone	Ü	Ug/kg	340		EPA 8270	98-051-130
ueldigby jour	ŭ	ug/kg	360			98-051-1007
-Dinitrotoluene	Ŭ	ug/kg	340		EPA 8270	98-051-100
Tribinitine	ŭ	ug/kg	1400		EPA 8270	96-051-1007
noplations	บั	UB/kB	340		EPA 8270	98-051-100
-Digittophenoi	ŭ	ug/kg			EPA 8270	98-057-1007
enzarizan	ŭ		1400		EPA 8270	98-051-1007
-Dinitrotoluene	ŭ	ug/kg	340		EPA 8270	98-051-1007
trappenol	น้	ug/kg	340		EPA 8270	98-051-1007
the phinalogn	ü	Ug/kg	1400		EPA 8270	98-051-1007
OF MINE	Ü	ug/kg	340	14-JAN-00	EPA 8270	98-051-1007
(grophwylphenylether		ug/kg	340	14-JAN-00	EPA 8270	98-051-1007
tiperilline	ប	ug/kg	340	14-JAN-00	EPA 8270	98-051-1007
the second in trophenol	U	ug/kg	1400	14-JAN-00 I	EPA 8270	98-051-1007
tipe ad phenyl anine	U	ug/kg	1400		EPA 8270	98-051-1007
iopophiny chantether	U	ug/kg	340		EPA 8270	98-051-1007
ecitiocopenzane	ט	ug/kg	340		EPA 8270	98-051-1007
tacil prophenal	U	ug/kg	340		PA 8270	98-051-1007
raygysane raygysanene	V	ug/kg	1400		PA 8270	09.051.1007
nortagenna Ngacana	U	ug/kg	340		PA 8270	70'UJI'1UU/
	U	ug/kg	340		PA 8270	98-051-1007 98-051-1007
aliote	υ	Ug/kg	340		PA 8270	14 65. 1001.
isbutyl phthalate	U	ug/kg	340		PA 8270	98-051-1007

Page 4

90	NY 10252 NJ 73186 PA 68180 EPA NY 00033	Approved by: Lab Diencing	
€ mg/L	= None Detected < = less than = milligrams per liter (equivalent to parts per million) = analyte was detected in the method or trip blank	ug/L micrograms per liter (equivalent to parts per z mg/kg multigrams per kilogram (equivalent to parts per z J result estimated below the quantitation limit	on

The information in this report is accurate to the best of our knowledge and ability. In no event shall our happing except the contract of the best of our knowledge and ability. In no event shall our happing except the contract of the best of our knowledge and ability. Your samples will be discarded after 14 days unless we are advised otherwise



Library search Compounds:

ii

# ONE RESEARCH CIRCLE WAVERLY, NY 14862 1/6/2 TELEPHONE (607) 565-3500 FAX (607) 561 1080

LA8 SAMPLE 10 144711-2

EMBR Ren Carper 2005: Cabot Boulevard West Langhorne; PA 19047 20-JAN-2000

SAMPLE REPACE
OFFICIAL
DESCRIPTION
ENABLE OFFI

BESICORP KINGSTON SED-1/0.0-0.5

GRAB

SAMPLE ON DATE BEGEVEU

11-JAN-00 12:35 by CLIENT

12-JAN-00 10:05

N/K

Retention

		_	Detection	Date	_	Notebook
netys le Renformed	Result	Units	Limit	Analyzed	Rethod	Reference
36.7						
· luorentemne	ŧ	ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
'yrane ar	Ĭ,	ug/kg	340	14-JAK-00	EPA 8270	98-051-10074
Jutylbenzyl shtheleto	น้	ug/kg	340	14-JAH-00	EPA 8270	98-051-10074
: jenzo(e)enthrecono	ŭ	ug/kg	340	14- JAH-00	EPA B27D	98-051-10074
1,3-Dichterobenzidine	Ũ	ug/kg	680	14-JAH-00	EPA 8270	98-051-10074
thrysensh:	บั	ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
lis-Z-ethylhexyl phthalato	ΰ	ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
Men-octyl phishalate	ŧΪ	vg/kg	340	14-JAN-00	EPA 8270	98-051-10074
Jenzo(blill/Oranthene	150 J	ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
Ionzo(k)filuorenthene	11	Ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
Benzo(a)Dyrane	76 J	ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
Indeno(\$2,3-cd)pyrone	Ü	Ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
Dibenzo(a;h)anthracene	ū	ug/kg	340	14-JAN-00	EPA 8270	98-051-1007-
Benzo(#/b/j)perylone	ŭ	ug/kg	340	14-JAN-00	EPA 8270	98-051-10074
	-	-0.7				
Extraction information:				13-JAN-00		99-137-143

						Time	
: "I	4-Nydrowy: A: Methyl-2-Pentanona	7600	ug/kg		7.23		
	nknoun	4000	ug/kg	1	12.6		
-	Unknown:	690 320	ug/kg ug/kg	,	38. 19 38. 79		
٠,	Unknown	360	ug/kg	ž	41.21		
ι.	Surrogati Recovery:						
	Terphoto Ledia	82		X			98-051-10074
٠٠,	2-fluorophenol	57		X			98-051-10074
	Phenol 200	62		X			98-051-10074
. ;	2,4,6-75 promphenol	78		7			98-051-10074
, ;	Hitrobergena-d5	65		X			98-651-10074
	2-Fluorabiphenyl	66		X			98-051-10074

Uni ts

Pus!

Results

Page 5

i .	ac	NY 10282 NJ 73188	PA 68180 EPA NY 00003	Approved by: Lab Director
		= None Detected	< = less than	ug/L mintograms per five (equivalent to parts per bit months a milliograms per kilostam (equivalent to parts per til 11)
	்) mg/L	= milligrame per liter (e:	quivalent to parts per million)	1113) kg thinking her parision (edamics a principle )
,	் mg/L தே B	= analyte was detected	in the method or trip blank	J result estimated below the quantificiant limit

to information in this report is accurate to the best of our knowledge and ability. In no event shall our liability excued the control of the record after the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of t

"Our family, caring about your analytical needs . . . Since 1963."

Analysis Comment: Results Calculated on a dry weight bosis.



#### ONE RESEARCH CIRCLE WAVERLY, NY 1560 (502 TELEPHONE (607) 545-3580 FAX (607) 9% odd

LAD SAMPLE ID

Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

L44711-6

OAH 0005-NAT-05

SAMPLE CAMBER CHRICKS **CALSUTION** SAMPLE ON

BESICORP KINGSTON SED-2/0.0-0.5

GRAB

11-JAN-00 14:50 by CLIENT 12-JAN-00 10:05

O SVEET HE LEAG

A\N

•					_	•		
, –	unitysis.	xerformed	Rosult	Units	Detection Limit	Date Analyzed	Hethod	Hatebook Reference
	5	Š						
	) Syanida	Gotal	u	mg/kg	0.63	19-JAN-00	EPA 335.3	99-003-72
. ;	Fotal 80	y tie	71	x		13-JAN-00	CLP 3.0	97-070-247
·-· ₁	<b>Lluminum</b>		5340	ng/kg	9.90	19-JAN-00	EPA 6010	99-227-02
. ;	unt imony		υ	mg/kg	6_60	19-JAH-00	EPA 6010	99-227-02
	Arsenta	12) viči: 64 :	U	mg/kg	15.8	19-JAN-00	EPA 6010	99-227-02
	Jerlus 🖁		41.6	mg/kg	2.11	19-JAH-00	EPA 6010	99-227-02
	20ryll1	r.	υ	mg/kg	0.264	00-HAL-91	EPA 6010	99-227-02
, -,	Codnium		U	mg/kg	0.6600	19-JAH-00	EPA 6010	99-227-02
!	Calcium		576	mg/kg	66.0	00-HAL-01	EPA 6010	99-227-02
ί.	Chronium		7.04	mg/kg	1.32	19-JAN-OD	EPA 6010	99-227-02
1	Cobelt		3.87	ma/kg	1.32	19-JAH-0D	EPA 6010	99-227-02
. 1	Copper 🕺	4	6.13	mg/kg	2.24	19-JAN-DO	EPA 6010	99-227-02
	TLOU 1		10400	mg/kg	5.28	19-JAH-00	EPA 6010	99-227-02
	Lead g		11.8	mg/kg	5.81	19-JAN-00	EPA 6010	99-227-02
	Negroot in		1930	mg/kg	66.0	19- JAN-00	EPA 6010	99-227-02
•	*anganea)		1910	mg/kg	13.2	19-JAH-DD	EPA 6010	99-227-02
	Makal S	7						
	Mickel A		19.7	ing/kg	1.58	19-JAN-00	EPA 6010	99-227-02
	Potenolu		378	mg/kg	66.0	19-JAN-00	EPA 6010	99-227 <b>-</b> 02
	Salentun		U	mg/kg .	190	19-JAN-00	EPA 6010	99-227-02
•	Silvor ()	5	υ	mg/kg	1.32	19-JAH-00	EPA 6010	99-227-02
		3						

Page 1

)C NY 10282 NJ 73168 PA 68180 **EPA NY 00033** Approved by Lab Director ND or U = None Detected mg/L = milligrams per KEY: = less than < micrografies per liter requivalent to darro her william VY/L = milligrams per litter (equivalent to parts per million) mg/kg milliprains per kilogram requirement to parts per m = analyte was detected in the method or trip blank result estimated below the quantilation and

The Information in this report is accurate to the best of our knowledge and ability. In no event shall our liability, exceed the cold or those sec four samples will be discarded after 14 days unless we are advised otherwise ٤,



ONE RESEARCH CIRCLE WAVERLY, NY 1982 1982 TELEPHONE (607) 565-3300 PAX particles pag

LAB SAMPLE ID

L44711-6

ensr Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

20-JAN-2000

SAMELL SOURCE CHESHI DESCRIPTION

BAMPSED ON

DATE RECEIVED

BESICORP KINGSTON SED-2/0.0-0.5

GRAB

DAH

11-JAN-00 14:50 by CLIENT

12-JAN-00 10:05

N/A P D 200

$x_1 = x_2$						
Analystic Performed	Result	Units	Detection Limit	Date Analyzed	Hethod	Hatebook Reference
sodium i	69	mg/kg	26.4	19-JAN-00	EPA 6010	99-227-02
That I fair	υ	mg/kg	8.58	19-JAN-00	EPA 6010	99-227-02
1 Vanedice	7.8	mg/kg	1.32	19-JAH-00	EPA 6010	99-227-02
[Zine ]	37.4	ng/kg	2.64	19-JAR-00	EPA 6010	99-227-02
EPA 8250			<del></del>	<del></del>	·	**************************************
Chloropethane	Ų	ug/kg	7 3	00-KAL-81 00-KAL-81	EPA 8260 EPA 8260	99-214-9627 99-214-9627
, Vinyljählonide : Chlorodingis	Ų U	ug/kg ug/kg	7	18-JAN-00	EPA 8260	99-214-9627
9romomethano	ŭ	ug/kg	7	18-JAN-00	EPA 8260	99-216-9627
1,1-Dichloroothene	U	ug/kg	7_	18-JAN-00		99-214-9627
Acetonia	Ų.	ug/kg	35	18-JAN-00	EPA 8260	99-214-9627
Carbon disulfide	ឋ u	ug/kg	7 7	00-KAL-81 00-KAL-81	EPA 8260 EPA 8260	99-214-9627 99-214-9627
Hethyldre chloride trens[][2:01chloroethane	U U	ug/kg ug/kg	7	18-JAN-00		99-214-9627
1.1-Dictionethane	ม	Ug/kg	7	18- JAN-00	EPA 8260	99-214-9527
cis-1,2-01chlorocthene	บั	ug/kg	7	18-JAN-00		99-214-9627
Methyliethyl ketone (2-Butanone)	Ũ	ug/kg	35	18-JAN-00		99-214-9527
Ch Lorgiform	V	ug/kg	7	18-JAH-00		99-214-9627
1,1,197 chloroethano	U	ug/kg	7	00-KAL-81		99-214-9627
Carbon tatrachloride Benzahe	ប ប	ug/kg ug/kg	1	18-JAN-DO 18-JAN-CO	EPA 8260 EPA 8260	99-214-9627 99-214-9627
1,2:0,2chioroethans	Ü	ug/kg	7	18-JAN-00		99-214-9627
Trichlorgethene	ŭ	ug/kg	7	18-JAN-00	EPA 8260	99-214-9627
1, 2:01ch loropropana	ü	Ug/kg	7	00-HAL-81	EPA 8260	99-214-9627
Bronodichioromethano	Ū	UB/KB	7	18-JAN-00	EPA 8260	99-214-9627
cla-23-bichtoropropene	U	ug/kg	7	18- Jan- 00		99-214-7627
Hathyl isobutyl ketone	U	ug/kg	14	1B-JAN-00	EPA 8260	99-274-962
Toluene	U	ug/kg	7	00-KAL-81		99-214-962
trangl; 3-Dichloropropene	U	ug/kg	7	00-HAL-86 00-KAL-81		99-214-967
1, 12 Trichlaroethine	y U	ug/kg	7	00-NAL-81		99-214-962) 99-214-962)
Tetrackloroethene	u V	ug/kg ug/kg	14	00-MAL-81		99-214-962
2-Najimojie Djbosijichloromethine	Ü	ug/kg	7	00-HAL-BI		
Chinippenzene Chinippenzene	บั	ng/ka	ż	18-JAN-00		99-214-962 99-214-962
Ethin benzene	ŭ	ug/kg	7	GO-MAL-81		99-214-962
p-Xylons/m-Xylene	บั	ug/kg	7	18-1AH-00	EPA 8260	79-214-962
o-XV tene	Ū	ug/kg	7	18-JAN-00	EPA 8260	99-214-962

Page 2

| NOT | NOT | **EPA NY 00033** Apprived by: NY 10252 NJ 73188 PA 68180 Lab Decembe = less than minigrams per filer fequivalent to partit per ND of U = None Detacted < ug/L invilgrams per sitegram (equivales) to parts : = milligrams per liter (equivalent to parls per million) mg/kg mg/L = analyte was detected in the mothod or trip blank result estimates helow the quartitution area

information in this report is accurate to the best of our knowledge and ability. In no event shall our meetity exceed the loss of Your campies will be discarded after 14 days unless we are advised otherwise.

rvica

h.

فرد



#### ONE RESEARCH CIRCLE WAVEIGLY, NY 13807 1 332 TELEPHONE (607) 565.3500 FAX (607) 565 2083

LAB SAMPLE ID

:L44711-6

DAIL 20-JAN-2000

ÉNSR Ron Carper

2005 Cabot Boulevard West Eanghorne, PA 19047

SAMPLE SOURCE ODRIGH

BESICORP KINGSTON SED-2/0.0-0.5

DESCRIPTION

GRAB

SAMINER ON DATE OF CLIVEL 11-JAN-00 14:50 by CLIENT 12-JAN-00 10:05

N/A

P.O. 1102

Loelys latzer formed	Result	Voits	Detection Limit	Date Analyzod	Kethod	Notebook Reference
<b>35</b> 10.						101010100
***			_			
;yrene;资 ·anoforiii:	Ų.	ug/kg	7	18-JAN-DD	EPA 8260	99-214-962
	ប	ug/kg	7	00-HAL-87	EPA 8260	99-214-962
,1,2,2 Fetrachloroethene	U	ug/kg	7	18-JAN-00	EPA 8260	99-214-962
Ibrary Bearch Compounds:	Results Unite	quet	Retention Time			
				•		
rrogatik Recovery: Ibromofilioromethone						
in one ration one thene	104	X				99-214-962
oluene (18) -Bronof Lugrobenzene	98	7.				99-214-962
nalysis Commont: Results Calculate	116	<b>.</b> X				99-216-962
PA 80824;	o on a ony watent sast	13.				
<b>3 1016</b>					······································	
-0 1010g[- -n 4004%]	ŭ	mg/kg	0.14	00-KAL-81	2808 A93	99-108-357
9 122 K	Ų	mg/kg	0.28	18-JAN-00	5808 A43	99-108-357
8 12378 - 12478	u	mg/kg	D. 14	00-HAL-81	EPA 8082	99-108-357
8 12425) 8 12485	<u>u</u>	mg/kg	0.14	18-JAN-G0	EPA 808Z	99-108-357
3 12540;	Ų	mg/kg	0.14	18- JAN-00	EPA 8082	99-108-357
8 1260	<b>V</b> O	mg/kg	0.14	18-JAN-00	EPA 8082	99-108-357
TELEPOOR	U	mg/kg	0.14	18-JAN-00	EPA 8082	99-108-357
Extraction Information:				00-KWF-21		99-154-152
urrogatik Recovery:	•					
ecach logobi pheny l	150	X				99-108-3571
alysis coment: PCb results ore c	elculated on a dry wei	ght basis.				
A 8270				·		
s(2-chiorowthylether)	บ	ua/ka	350	14-JAH-00	EPA 8270	98-051-100
enel 👸	Ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-100
enol (3) Chlarophenol	V	ug/kg	350	14-JAX-00	EPA 8270	98-051-100
3-Dichtorobenzene	Ú	ug/kg	350	14-JAN-00	EPA 8270	98-051-100
4-Dichterobenzene	U	Ug/kg	350	14-JAN-00	EPA 8270	98-051-100
2-Dichityrobenzene	ឋ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
s(2-chiligrolsopropylether)	ប	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
Nethy (ghanol	U	ug/kg	350	14-JAN-Q0	EPA 8270	98-051-1007
xechlofpathene	U	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
Mitrosodi-N-propytamine	Ų	ug/kg	350	14-JAH-00	EPA 8270	98-051-100
Hethylphenol/4-Hethylphenol	U	ug/kg	350	14-JAN-00	EPA 8270	98-051-100
				•		
<b>₽</b> ₹		Page 3				
145						

ic :		NY 10252	NJ 73188	PA 68180	EPA NY 00033	A	ррг	oved by: (ab Direction
ช:	η̈́g/L		per liter (eq		ss than ids per million) or trip blank	ug/l. mg/kg J	-	michigans per liter teasivalent to parts per battor milligrams per kilogram (equivalent to camp per mil- result estimated below the quantitation of mil-
•					<del></del>			· mas w

in information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the call is sheet seems bur samples will be discarded after 14 days unless we are advised otherwise.



ONE RESEARCH CHICGE WAVERLY, NY 10000 0000 TELEPHONE (601) 505-3500 FAX (601) 000-0000

LAB SAMPLE ID

144711-6

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 TURNES STRAS REGRES MORTHURSES VOTESMAR

DATE OF LEDVER

DV11 30-1VN-5000

BESICORP KINGSTON SED-2/0.0-0.5

GRAB

11-JAN-00 14:50 by CLIENT

12-JAN-00 10:05

re 90. N/A

6	<b>6</b>	Units	Detection Limit	Date Analyzed	Hethod	Notebock Reference
nalysis Performed	Result	UNITE	CIMIC	MALYECO	Netwoo	ve se se se se
<b>%</b> :						
trob <b>ágitána</b>	U	Ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
eobpoligue LELopalitaile	ŭ	na/ka	350	14-JAN-00	EPA 8270	78-051-1007
-Nitrophenol	Ü	ug/kg	350	14- JAN- DO	EPA 8270	98-051-1007
4-Dinathylphenol	ŭ	ug/kg	350	14- JAN-00	EPA 8270	98-051-1007
s(2-cijiorgethoxynethene)	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
4-Dielitorophenol	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
2.6-Te chiorobenzene	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
oph the lane:	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
Chlorganiaine	นี้	Ug/kg	690	14-JAN-00	EPA 8270	98-051-1007
exact in obited one	ប័	ua/kg	350	14-JAN-00	EPA 8270	98-051-1007
-Chlore-37methylphenol	Ü	ua/ka	690	14-JAX-00	EPA 8270	98-051-1007
-Nathyltaphthalene	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
exact (glicody's robout agrana	ŭ	ug/kg	350	14-JAH-00	EPA 8270	98-051-1007
.6.6-Edelicorophenol	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
4,5-Hilchlorophenol	Ŭ	ug/kg	350	14-JAH-00	EPA 8270	98-051-1007
-Chloronaphthelane	Ü	na/ke	350	14-JAH-00	EPA 8270	98-051-1007
-Cittorgiasprenations	ŭ	ug/kg	1400	14-JAH-00	EPA 8270	98-051-100
methyl pithalato	บั	Ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
conepishyleho	Ü	ug/kg	350	14-JAH-DD	EPA 8270	98-051-100
,6-pintriotoluena	. ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
-Nitrosnitine	บั	ug/kg	1400	14-JAN-00	EPA 8270	98-051-1007
cnapithene	ŭ	us/kg	350	14-JAN-00	EPA 8270	98-051-1607
6-Dinstrophenol	บั	Ug/kg	1400	14-JAH-00	EPA 8270	98 - 051 - 1607
*benze/furari	นั	ug/kg	350	14-JAN-00	EPA 8270	98-051-1002
,4-Dinitroteluene	ยั	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
-Nitrophanol	ŭ	ug/kg	1400	14-JAK-00	EPA 8270	98-051-1007
inthy philiste	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-057-1007
luorede	ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-1007
-Chlacopheny Lphany Lather	ŭ	Ug/kg	350	14-JAH-00	EPA 8270	98-051-100
-Nitrografiline	บั	ug/kg	1400	14-JAN-DO	EPA 8270	98-051-100
-Nathal & 6-dinitrophenol	บั	ug/kg	1400	14-JAN-00	EPA B270	98-051-100
-Nitrosodighenylamine	บั	ug/kg	350	14-JAN-00	EPA 8270	98-051-160
-Bromophiny Lpheny Lather	ŭ	ug/kg	350	14-JAN-90	EPA 8270	98-051-100
- At ording the broad racine.	ŭ	ug/kg	350	14-JAN-D0	EPA 8270	98-051-100
entacii lorochena i	ŭ	ug/kg	1400	14-JAN-00	EPA 8270	98-051-100
	Ŭ	ug/kg	350	14-JAN-00	EPA 8270	98-051-100
heneritätene	U	ug/kg	350	00-KAL-41	EPA 8270	98-051-100
nthreceine	=		350	14-JAN-00	EPA 8270	98-051-100
erbezola	u 	ug/kg	350	14-JAN-00	EPA 8270	98-051-100
i-n-bury phthalate	U U	ug/kg	350 350	14-JAN-00	EPA 8270	98-051-100
Luorantherio		ug/kg ug/kg	350	14-JAH-00	EPA 8270	98-051-100
yronge	Ų Ų		350	14-JAN-00	EPA 8270	98-051-100
urylögizyi phthalate	<b>u</b>	ug/kg	330	14-5M4-00	FIN OLIV	70 03. 100

Page 4

ac		NY 10252	NJ 73188	PA 68180	EPA NY 00033	Approved by	<u>/</u>	Lab Oirocies
		= None Date	ected	• • • • • • • • • • • • • • • • • • • •	ss than			(équivalent la partir per trail om (equivalent la martir our
<b>2</b> 3	mg/L = milligrams per liter (equivalent to parts per million)							
الميا عام	8	= analyte wa	es detected i	n the method	or trip blank	Jinaan L	estimated being	withe quantities from in the

Impiration in this report is accurate to the best of our knowledge and ability. In no event shall our limitable exceed the contribute of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the p

"Our family, caring about your analytical needs . . . Since 1963."

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D. Front

ONE RESEARCH CIRCLE WAVERING MY 1980 CARD TELEPHONE (607) 565-3560 FAX (607) 565 168

LAB SAMPLE ID

L44711-6

ENSR Røn-Carper 2005 Cabot Boulevard West Eanghorne, PA 19047

SAMPLE DEFINE entink i DESCRIPTION SAMPLEFIN

Limit

20-JAN-2000 BESICORP KINGSTON

SED-2/0.0-0.5 GRAB

Data

11-JAN-00 14:50 by CLIENT 12-JAN-00 10:05

Natebook

Reference

12

N/A

Analyzed Hethod

Egnghorne, PA 19047	DATE OF CENTER
	PO tel
57.	Detection

Rosuit

						115 211000	ACTOL BLICE
enzo(a)mithrecene	u		ug/kg	350	14-JAN-00	EPA 8270	98-051-10071
3,3-01ajjjojjapanzidine	Ü		ug/kg	690	14-JAH-00		98-051-10071
Chrysena	U		ug/kg	350	14-JAN-00		98-051-10071
11s-2-othythoxyl phthalete	บ		Ug/kg	350	14-JAN-0D		98-051-10071
of-n-occidiophthalata	บ		ug/kg	350	14-JAN-00		98-051-10071
3enzo(50/f)luorentheno	บ		ug/kg	350	14-JAH-00	EPA 8270	98-051-10071
Benzo (kar i ugranthene	u		ug/kg	350	14-JAN-00		98-051-10071
Benzo(B)pyrane	Ų		ug/kg	350	14-JAN-DO	EPA 8270	98-051-10071
Indeno(1,2,3-cd)pyrene	U		ug/kg	350	14-JAN-00		98-051-16071
Dibenzofa/h)anthrecane	u		n8/k8	350	14-JAN-00	4	98-051-10071
Bonzo(g)jiyil)perytene	U		ug/kg	350	14-JAN-00	EPA 8270	98-051-10071
Extraction information:					00-HAL-E1		99-137-143
S THE PARTY OF THE PROPERTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF					יסס-אאמייבו		77-121-142
55							
Libranic Search Compounds:		Results	<b>Units</b>	Post 1	Retention		
(9) ·			-,,,,		Time		
		<del></del>			· · · · · · · · · · · · · · · · · · ·		
4-Hydroxy-4-Nethyl-2-Pantanone	9800	ug/kg		7.25	•		
Unknown	4700	ua/ka	3	12.59			7

Units

!	Unknown	9500 4700	ug/kg ug/kg	t	7.25 12.59	•	:1
	Unknown	360	ug/kg	j	34.74		: : : : : : : : : : : : : : : : : : :
							a a a a a a a a a a a a a a a a a a a
	Surrogate-Rocoverys						<u>`</u>
	Terphonylid14	80		¥			98-051-10071
	2-Figorophenol	64	,	X	•		98-051-10071
	Phenol. 45	68		X			98-051-100712
	2,4,00 Tribromophenol	80		X			98-051-1007
	N1 Crobenzene-d5	72		*			98-051-1007 <u>1</u> § §
	2-Figorobi phenyl	75		χ.			98-051-10071日
	Analysis Comment: Results Calculate	ed on a dry k	ו אלו לאמוייי	<b>4</b> .			: <b>\%</b> \%

Page 5

<b>6</b> 0	<del></del>	NY 10262	NJ 73168	PA 88180	EPA NY 00033	App	TOVAS by:	Little Ore ster	1
The state of	mg/L		per liter (eq	ulvalent to pi	ose than arts per millionj or trip blank	ug/L mg/kg J	milligrams per k	Dier (equiverent les parts plans) dugram (equivarient les parts plans) alian l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archivation l'archiva	เมื่อ
Tho Into	nollami	in this report	is accurate	to the best of	our knowledge and	ability. In 19	resent abalt en elle	below the quantitation for this billing axis and a second	vervi

Your samples will be discarded after 14 days unless we are advised emerwise.



## ONE RESEARCH CIRCLE WAYERLY, NY 19800 15-12 TELEPHONE (607) 565-3500 FAX (607) 565-1683

LAB SAMPLE ID

L44711-3

FAIR Report Carper 2005 Cabot Boulevard West Linghorne, PA 19047

OAH

20~JAN-2000

SAMPLE SOURCE
ONGO
OSSCRIPTION

SAMPLE IT ON

BESICORP KINGSTON SED-3/0.0-0.5

GRAB

11-JAN-00 14:55 by CLIENT 12-JAN-00 10:05

DATE SECTION

ראנ נאין א

N/A

	·							
	inalysis	Performed	Result	Units	Detection Limit	Pote Analyzed	Hethod	Notebook Roference
								-
,	Cyanide	iotal	U	ng/kg	0.483	19-JAN-00	EPA 335.3	99-003-72
٠	Total Bo	ids.	69-4	x		13-JAN-00	CLP 3.0	97-070-247
!	Aluminu		7220	ng/kg	10.5	19-JAH-00	EPA 6010	99-227-02
	Antimori		¥	mg/kg	7.01	19-JAN-00	EPA 6010	99-227-02
	Areenio		υ	mg/kg	16.8	19-JAN-00	EPA 6010	99-227-02
	Berlun		37.5	mg/kg	2.24	19-JAH-00	EPA 6010	99-227-92
-4	Boryllig	<b>n</b> :	U	mg/kg	0.280	19-JAH-00	EPA 6010	99-227-02
٠	Codelun	``	u	mg/kg	0.7010	19-JAN-00	EPA 6010	99-227-02
	Calcium;		1050	mg/kg	70.1	19-JAN-00	EPA 6010	99-227-02
٠.	Chronist	· · · · · · · · · · · · · · · · · · ·	8.83	mg/kg	1.40	19-JAN-00	EPA 6010	99-227-02
•	Cobal		5.26	mg/kg	1.40	19-JAN-00	EPA 6010	99-227-02
	Coppen		12.5	mg/kg	2.38	19-JAN-00	EPA 6018	99-227-02
1	Iron		13900	mg/kg	5.60	19-JAN-00	EPA 6010	99-227-02
1	Lead		19.1	mg/kg	6_16	19-JAN-00	EPA 6010	99-227-02
,	Magnessu	<b>.</b>	2630	mg/kg	70.1	19-JAN-00	EPA 6010	99-227-02
	Hengelies	•	277	mg/kg	0.701	19- JAX-00	EPA 6010	99-227-02
$\ $	Nicket	•	17.3	mg/kg	1.68	19-JAN-00	EPA 6010	99-227-02
. [	Potamelu	п -	432	mg/kg	70.1	19-JAN-00	EPA 6010	99-727-02
1	Solonius	1	U	mg/kg	9.83	19- JAN-00	EPA 6010	99-227-02
	91(ver	·	บ	mg/kg	1.40	19-JAN-00	EPA 6010	99-227-02

Page 1

QC NY 10252 NJ 73188 PA 68180 EPA NY 00033 Approved by:

EV ND or U = None Detected < = loss than

| mg/L = milligrams per liter (equivalent to parts per million)
| = analyte was detected in the method or trip blank

ug/L mg/kg micrograms per later (equivate, i to parts per i miligrams per kingram (equivatent to parts si result estimated butow the quantitat on limit

doe

The information in this report is accurate to the best of our knowledge and activity. In no event shall our requirity exceed the last of Your samples will be discarded after 14 days unless we are advised otherwise.

1.:



# ONE RESEARCH CIRCLE WAVERLY, NY 14892 to 2 TELEPHONE (807) 665-3600 PAX (607) bill 1083

LAB SAMPLE ID

L44711-3

ENSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 0002-NAL-02

SAMPLE, SCHARCE, Official DESCRIPTION

SAMPLEH ON

BESICORP KINGSTON SED-3/0.0-0.5

GRAB

11-JAN-00 14:55 by CLIENT 12-JAN-00 10:05

PIO, NO.

no. N/A

lysts Earformed	Aeoulz	Units	Detection Limit	Date Anelyzed	Hethod	Notebook Reference
						****
lfun 🎉 -	62.8	ma/ka	28.0	19-JAN-00	EPA 6010	99-227-02
	<b>V</b> 2.10	1.41	20.0	17 076-00	EFR 0010	44.551.05
ll lui ()	u	mg/kg	9.11	19-JAN-00	EPA 6010	99-227-02
adlus	10.5	mg/kg	1.40	19-JAN-00	EPA 6010	99-227-02
c 🤾	69.6	mg/kg	2.60	19-JAN-00	EPA 6010	99-227-02
6260						
orometriació	Ü	ug/kg	7 .	18-JAN-0D	EPA 8260	
yl childride	ŭ	ug/kg	3	18-JAN-00	EPA 8260	99-214 <b>-</b> 962 99-214 <b>-</b> 962
procifiano	Ú	ug/kg	7	DG-WAL-81	EPA 8260	99-214-962
nonothere	บ	ug/kg	7	16- JAN-00	EPA 8260	99-214-96
-Dicilionaethane	V	ug/kg	7	18-JAN-00	EPA 8260	99-214-96
tone (fi: bon Ateul fide	Ų	ug/kg	35	18-JAN-00	EPA 8260	99-214-96
vylehlikálioride	ບ	ug/kg	7	18-JAH-00	EPA B260	99-214-96
ng-1;2:83chloroethene	Ü	ug/kg	7	18-JAN-00	EPA 8260	99-214-96
na- (22-u) chtaroethane -Disbloroethane	Ü	ug/kg	7	18-JAH-00	EPA 8260	99-214-96
-1,2;0 lah(oroathene	U	ug/kg	7	18-JAN-00	EPA 8260	99-214-96
hyl stryk ketone (2-Butenone)	<b>U</b> II	Ug/kg	7	18-JAH-00	EPA 8260	99-214-96
oroforia	_	ug/kg	35	18-JAN-D0	EPA 8260	99-214-96
	V.	ug/kg	7	18-JAN-00	EPA 8260	99-214-96
, 1-161 chioroethene con: germich loride	Q	ug/kg	7	18-JAN-00	EPA 8260	99-214-96
zange:	ប	ug/kg	7	00-HAL-81	EPA 8260	99-214-967
Dichtoroethane	Ų	n8\#B	.1	18-JAH-00	EPA 8260	99-214-96
th Light of the ne	U	ug/kg	· <u>7</u>	18-JAN-00	EPA 8260	99-214-96
n Coltagopropena	U	ug/kg	7	18-JAK-DQ	EPA 8260	99-214-96
odětkloromethane	Ų	n8/k8	7	00-kal-81	EPA 8260	99-214-96
1,300 (chi oropropens	Ü	ug/kg	7	1B-JAH-00	EPA 8260	99-214-96
iyiyisobutyi ketone	U	ug/kg	7	18-JAH-DD	EPA 8260	99-214-96
	U	ug/kg	14	18-JAN-00	EPA 8260	99-214-96
2000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To 1000 To	Ų	ug/kg	7	18-JAN-00	EPA 8260	99-214-96
e-163-Dichtoropropens	U 	ug/kg	7	00-WAL-81	EPA 8260	99-214-96
2-17 (chloroethene echloroethene	ນ	ug/kg	7	00-HAL-B1	EPA 8260	99-214-96
randus scurotosucus	· U	ug/kg	7	00-HAL-87	EPA 8260	99-216-962
	U	ug/kg	14	18-JAH-00	EPA 8260	99-214-56
conchicromethane	ប	ug/kg	7	00-MAL-81	EPA 8260	99-214-968
rationane	ม	ug/kg	7	18-JAH-00	EPA 8260	99-214-96
Uninzarie	Ü	UB/KB	<u>?</u>	18-JAK-DD	EPA 8260	99-214-967
(lebe/m-Xylene	Ų	ug/kg	7	18-JAK-00	EPA 8260	99-214-962
(Leise	U	Ug/kg	7	18-JAN-00	EPA 8260	99-214-982

Page 2

QC	NY 10252	NJ 73168	PA 68180	EPA NY 00033	Approved by:	
KEY ND or U W mg/L	= None Detoc = milligrams p = analyte was	per litar (oq	uivalent to pa	es than arts per million) or trip blank	ug/L micrograms per tirer (squivalent to corts per to mg/kg i milligrams per kilogram (squivalent to parts per to J result estimated below the quarters in time.	m)

The information in this report is accurate to the best of our knowledge and ability. In no event shall our Parking excension your earned after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs. Since 1963."

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#### ONE RESEARCH CIRCLE WAVERLY, NY 1 Hour Book TELEPHONE (607) 565-8600 FAX (607) 565 foot

LAB SAMPLE ID

Lenghorne, PA 19047

n Carper

L44711-3

DATE 20-JAN-2000

SAMPLE SOURCE CRIGIN DESCRIPTION 2005 Cabot Boulevard West

BESICORP KINGSTON SED-3/0.0-0.5

GRAB

SAMPLE DON DATE RECEIVED 11-JAN-00 14:55 by CLIENT 12-JAN-00 10:05

**>8.** 

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A\N P.O. 103

							~ ~ ~
netyels Reformed	Result		Units	Detection Limit	Date Analyzod	Hethod	Notebook Reference
<b>36</b>							
Syrane &	U		Ug/kg	7	18-JAN-00	EPA 8260	99-214-9624
onoform	U		ug/kg	7	18-JAN-00	EPA 626D	99-214-9624
,1,2,2-terachloronthene	U		ug/kg	7	18-JAH-00	EPA 8260	99-214-9624
(brary Sparch Compounds:	Results	Units	Qual	Retention Time			•
uknown 📆	17	ug/kg	1	21.87			
urrogetajkecovery:							
fbronofliocomothane	104	•	3				99-214-9624
otuene-dili ? -Brosoffoorobenzone	101 121		ž	•			99-214-9624 99-214-9624
nelyelegiomont: Results Calculated		ht basi	· .				77 614-7064
PA 8082							
il V							AD 100 9516
CB 10162 CB 12215:	ម ប		mg/kg mg/kg	G.14 0.29	00-KAL-81 00-KAL-81	EPA 8082 EPA 5082	99+108+3568 99+108-3568
C8 1232	ŭ		me/kg	0.14	18-JAN-00	EPA 8082	99-108-3568
CB 12423	ŭ		mg/kg	0.14	18-JAN-00	EPA BD82	99-108-3568
CB 1245	υ		mg/kg	0.14	18-JAH-00	EPA 8082	99-108-3568
CB 1254%	บ		ng/kg	0.14	18-JAN-00	EPA 8082	99-108-3568
CB 12605	U		mg/kg	0.14	18-JAN-00	EPA 8082	99-108-3568
Extraction Information:					12-JAN-00		99-154-152
urrogaža Recovery:							
ocach i grab i pheny i	113		*				99-108-3568
inalysis Commont: PCb results are co	lculated on a	dry wei	ight besis.				
PA 82705							
ra ocius	<del></del>				<del></del>		····
is(2-cilliproathylether)	บ		ug/kg	360	14-JAN-00	EPA 8270	98-051-1007
henol 🥳	U		ug/kg	360	14-JAK-00	EPA 8270	98-051-1007
-Chlorophenol	Ä		ug/kg	360	14-JAH-00	EPA 8270	98-051-1007
,3-D1citionabenzene ,4-D1citionabenzene	Ų V		ug/kg Ug/kg	360 360	14-JAN-80 14-JAN-80	EPA 8270 EPA 8270	98-051-1007 98-051-1007
,4-0 (chsorobenzeno ,2-Diciblorobenzeno	Ü		ug/kg ug/kg	360	14-JAN-00	EPA 8270	98-051-1007
ia(2-milorojsopropylether)	ŭ		ug/kg	360	14-JAN-OD	EPA 8270	98-051-1007
-Nethystalianol	ν̈		ug/kg	360	14-JAN-00	EPA 8270	98-051-1007
exachibroothene	Ų		ug/kg	360	14-JAN-00	EPA 8270	98-051-1007
i-Hitrogodif-R-propylanine	U		vg/kg	360	14-JAN-00	EPA 8270	98-051-10077

Page 3

•	gc	NY 10252 NJ 73168 PA 88180 EPA NY 00033	Approved by: Lab Director
1	KEY: END or U	= None Detected < = less than	ug/L = micrograms per hinr (equivalent in partt per bill :
:	ing/L	= milligrams per titor (equivalent to parts per million)	mg/kg = miffigrams por kilogram (equivalent to parts per =
<b>:</b>	ŞB	= analyte was detected in the method or trip blank	J - result estimated below the quantitation Finit

he information in this report is accurate to the best of our knowledge and ability. In no event shall our flate-thy exceen the mineral times. Your samples will be discarded after 14 days unless we are advised otherwise.



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#### ONE RESEARCH CIRCLE WAVERLY, NY 19892 1992 TELEPHONE (607) 565-3500 FAX (607) 505 (683)

LAB SAMPLE ID

L44711-3

ens R Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047 DAD

20-JAN-2000

SAMPLE SOURCE OHKHIN DESCRIPTION SMATTERON

BESICORP KINGSTON SED-3/0.0-0.5

GRAB

11-JAN-00 14:55 by CLIENT 12-JAN-00 10:05

DATE RECEIVED CO tiO.

ACC.			Detection			
netystasterformed	7 Juac R	Units_	Limit	Date Analyzed	Hethod	Notebook Réference
<b>*</b>						
I-Nathy(@enol/4-Nathytphenol	u	ug/kg	360	16 - Jan - 00	504 0076	AA A#4
li troberdine	Ü.	ug/kg	360	00-KAL-21 00-HAL-21	EPA 8270 EPA 8270	98-051-10072
sophoroge .	ŭ	ug/kg	360	14-JAN-00		98-051-10072
-Ni tropienol	ŭ	ug/kg	360	14-JAN-00 14-JAN-00	EPA 8270 EPA 8270	98-051-10072
.4-Dimethy.Lphenol	ũ	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
(s(2-chiloroethoxymethene)	ŭ	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
.4-Dicheonol	Ũ	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072 98-051-10072
,2,4-1 Ech Corobanzene	Ŭ	ug/kg	360	16-JAN-00	EPA 8270	98-051-10072
tch the little	Ü	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
-Chlorognt Line	Ü	ug/kg	720	14-JAH-00	EPA 8270	98-051-10072
exachi dioixitadiene -Chione :: methy (phonoi	ΰ	ug/kg	360	14-JAN-CO	EPA 8270	98-051-10072
Chioraga methy i phonoi	ט	ug/kg .	720	14-JAN-00	EPA 8270	98-051-10072
Methy (Saphthal ene Execution ocyclopented lene	V	ug/kg	360	14-JAK-00	EPA 8270	98-051-10072
xachigrocyclopentadions	IJ	ug/kg	360	14-JAK-00	EPA 8270	98-051-10072
4,6-FRichlarophenol	Ŋ	Ug/kg	360	14-JAH-00	EPA 8270	98-051-10072
4,5-161011 torophenol. Chlorenaphthalane	บ	Ug/kg	360	14-JAK-00	EPA 8270	98-051-10072
Chloryhaphthalane	IJ	Ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Nitrognijine	U	ug/kg	1400	14-JAN-00	EPA 8270	98-031-10072
metholphthelate	Ü	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
cnsplathylane	Ü	Ug/kg	360	16-JAN-00	EPA 8270	98-051-10072
6-Diffitiocoluses	Ú	ug/kg	260	14-JAN-00	EPA 8270	98-051-10072
Kitcomittice	Ū	ug/kg	1400	14 - JAN - 00	EPA 8270	98-051-10072
enaphthime	Ū	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
4-Digitrophenol	Ü	Ug/kg	1400	14-JAN-00	EPA 8270	98-051-10072
benzistiran	Ú	ug/kg	260	14-JAN-00	EPA 8270	98-051-10072
4-Digitroretuene	U	ug/kg	360 ·	16-JAN-00	EPA 8270	98-051-10072
Kirigonikol	ŭ	ug/kg	1400	16-JAN-00	EPA 8270	98-051-10072
ethylephthalato	Ü	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
UOT WIRE	U	ug/kg	360	14- JAN-DD	EPA 8270	98-051-10072
Chlorophonylphonylether	Ú	ug/kg	- 360	14-JAN-00	EPA 8270	98-051-10072
XI transfirm	U	ug/kg	1400	14-JAN-00	EPA 8270	98-051-10072
Hether -4, p-dinitrophenol	บ	ug/kg	1400	14-JAN-80	EPA 8270	98-051-10072
Nitrescalpheny Landine	U	Ug/kg	360	14-JAX-00	EPA 8270	98-051-10072
Promophenylphonylether	บ	Ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
xecité di obenzene	U	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072-1
ntachtarophenot	V	ug/kg	1400	14-JAN-00	EPA 8270	98-051-10072
chaigthrane	ัก	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
thracene	u	Ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
rbeible	บ	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
-vigithi butuntase	ี่	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
uo minthene	U	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
<b>क्रिके</b>	บ	Ug/kg	360	14-JAN-00	EPA 8270	98-051-10072

	Page 4	
qc	NY 10252 NJ 73188 PA 88180 EPA NY 00033	Approved by: first w Lab Director
KEY ND or to	Hone Detected < = less than = milligrams per liter (equivalent to parts per million) = analyte was detected in the method or trip blank	ug/L micograms per titer (equivalent in parts per time/mg/kg milligrams per kilogram (equivalent to parts promotify)  J result estimated bolow the quantitation (fine)

The information in this report is accurate to the best of our knowledge and ability. In no event shall our stability exceed the cost of the Your eamples will be discarded after 14 days unless we are advised otherwise.



ONE RESEARCH CIRCLE WAVERLY, NY 14892 0302 FAX (607) 565 1083 TELEPHONE (667) 565-3600

DATE

20-JAN-2000

LAB SAMPLE ID

· L44711-3

**ENSR** 

Hon Carper 2005 Cabot Boulevard West Banghorne, PA 19047 SAMPLE SCHPCE OHKUN DESCRIPTION HO CHINNA

BESICORP KINGSTON SED-3/0.0-0.5

GRAB

11-JAN-00 14:55 by CLIENT

DATE RECTIVEU 112-JAN-00 10:05 N/A

P.O. NO.

. 37			Detection	ezeŭ		Notebook
Anelysizarformed	Tiuses	Units	Limit	Analyzed	Hethod	Reference
2						
Butviberayl phtheisto	U	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Benzo(a)anthracene	Ū	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
3,3-Dicktorobenzidine	บ	ug/kg	720	14-JAN-00	EPA 8270	98-051-10072
Chrysene	บั	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Bis-2-estylhenyl phthelote	U	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Di-n-octy/ phthelete	Ü	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Benza(biflioranthene	ΰ	ve/ke	360	14-JAN-00	EPA 8270	98-051-10072
Benzo(Kittiorenthene	Ū	Ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Benzo( albyrene	Ŭ	ug/kg	360	74-JAH-00	EPA 8270	98-051-10072
Indeno(\$1,2;3;cd) pyrane	Ū	Ug/kg	360	14 - JAN-00	EPA 8270	98-051-10072
Dibenzoca, h)anthracene	u	ug/kg	360	14-JAN-00	EPA 8270	98-051-10072
Benzo(g/h/f)porylene	u	บg/kg	360	14-JAN-00	EPA 8270	98-051-10072
		37 . 4				
Extraction informations				13-JAN-00		99-137-143

Library Saerch Compounds:		Results	Units	Qual	Retention Time
4-Hydrany-5-Nethyl-2-Pentanona Unknown;	10000 5000	ug/kg ug/kg	J	7.25 12.6	
Unknoing: Unknoing:	* 500 510	ug/kg ug/kg	1	38.79 41.21	

Surrogeta Recovery:		
Terpholyl-d14	68	X
2-Fluorophanol	68	X
Phonoiett	73	X
2,4,620 (brosophenot	86	X
Ni trobenzene-d5	76	X
2-flugkökighanyt	76	X
Analysia Comment: Results Calcul	ited on a dry weight	basis.
Wint String, Account of the Vande on Contract	rece on a city acitine	

98-051-10072 98-051-10072 98-051-10072 98-051-10072 98-051-10072

78-051-10072

Page 5

NY 10252

NJ 73168

PA 58180

**EPA NY 00033** 

Approved by:

Lab Director

NO or U = None Detected

< = leas than

ug/L

miningrams per liter (equivalent to mirts per a milliorams per kilogram (equivaters to pans per

mg/L

= milligrams per liter (equivalent to parts per million) = analyte was detected in the method or trip blank

mg/kg J

result estimated below the quartitation limit

Minformation in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the test of the gramples will be discarded after 14 days unless we are advised otherwise.

Ces



#### ONE RESEARCH CIRCLE WAVERLY, NY 14892 45.2 TELEPHONE (607) Sis-Brou FAN (1997) 365 4089

LAB SAMPLE ID

Langhorne, PA 19047

4

1544711-4

Ron Carper 2005 Cabot Boulevard West

DAH 20-JAN-2000

SAMPLE SOURCE OHIGH

CESCON-DON SAMPLET ON DATE DECENÇO BESICORP KINGSTON DP-1/1.0-1.5

GRAB

11-JAN-00 15:35 by CLIENT 12-JAN-00 10:05

N/A PO IN

•		(A) (B)		<del></del>			,	
ا.	inalysis	Performed	Result	Units	Detection Limit	Dete Analyzed	Rethod	Notabask Reference
, ,								
	Cyanide	Sjotel	U	ing/kg	0.606	19-JAX-00	EPA 335.3	99-003-72
•	Total Bo	lijās 1	77.6	x		13-JAN-00	CLP 3.0	97-070-247
1	Alumina		10100	mg/kg	9.74	19-JAN-00	EPA 6010	99-227-02
•	Antimony	Š. ,	U	mg/kg	6.49	19-JAN-00	EPA 6010	99-227-02
,	Arsenic		ีย	ng/kg	15.6	19-JAN-00	EPA 6010	99-227-02
;	Bartus 🥳		46.5	mg/kg	80.5	19-JAN-00	EPA 6010	99-227-02
•	Peryll (1)		บ	mg/kg	0.260	19-JAN-00	EPA 6010	99-227-02
•	Cacini ura		บ	mg/kg	0.6490	19-JAX-00	EPA 6010	99-227-02
	Calcium	į.	2230	mg/kg	64.9	19-JAN-00	EPA 6010	99-227-02
1	Chronium		9.92	mg/kg	1.30	19-JAN-00	EPA 6010	99-227-02
	Cobal t		4.86	mg/kg	1.30	19-JAN-00	EPA 6010	99-227-02
์ 1	Copper	•	19	ng/kg	2.21	19-JAN-00	EPA 6010	99-227-02
•	Iron 👸	<b>;</b> ·	14900	mg/kg	5,20	19- JAN-00	EPA 6010	99-227-02
•	Lead 3		37.5	mg/kg	5.72	19-JAN-00	EPA 6010	99-227-02
)	lagnes (v		2120	ng/kg	64.9	00-KAL-Pf	EPA 6010	99-227-02
٠,	langenge	• •	269	mg/kg	0.649	19-JAN-00	EPA 6010	99-227-02
,	(Ickel®		14.5	- at .				
	otassis.		•	mg/kg	1.56	00-KAL-91	EPA 6010	99-227-02
	oleri	•	638	mg/kg	64.9	19-JAN-00	EPA 6010	99-227-02
	ilven		U 	mg/kg	9.09	00-KAL-91	EPA 6010	99-227-02
. 4	i tvaniri	•	U	mg/kg	1.30	19-JAN-00	EPA 6010	99-227-02

Page 1

NY 10252 PA 88180 NJ 73188 **EPA NY 00033**  Approved by

Leb Director

35.

40

50

KEY: 袋 ND or U = None Detected

= less than

ロジ/ト - "micrograms per liter (equivalent in partie per 5% in

mg/L = analyte was detected in the method or trip blank

= milligrams per liter (equivalent to parts per million)

mg/kg = milligrams per kilogrom (aquivalent t. parts per tosult estimated below the quantitation limit

The ligraniation in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the light or thou Your samples will be discarded after 14 days unless we are advised otherwise.



## ONE RESEARCH GIRCLE WAVERLY, NY 14892 1502 TELEPHONE (607) 565-3600 FAX (607) 765-688

DAIL

20-JAN-2000

LAB SAMPLE ID

L44711-4

EMSR Ren Carper 2003 Cabot Boulevard West Langhorne, PA 19047 SAMPLE SCORES
ORIGIN
DESCRIPTION
SAMPLED ON

DATE MINITINED

BESICORP KINGSTON DP-1/1.0-1.5

GRAB

11-JAN-00 15:35 by CLIENT 12-JAN-00 10:05

• >-

34. 11:

PO.00 N/A

					man and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco	
	netyele Rentormed	Result	Uni të	Detection Limit	Date Analyzed Method	Hotebook Reference
						·
,	iodium	64.1	ng/kg	26.0	19-JAN-00 EPA 6010	99-227-02
	Mettunia	u	mg/kg	8.44	19-JAN-00 EPA 6010	99-227-02
,	/anadium	13.4	mg/kg	1.30	19-JAN-00 EPA 6010	99-227-02
:	Zina 🥻	67.6	mg/kg	2.60	19-JAH-00 EPA 6010	99-227-02
٠	EPA 8260				-	لة المراكبية المستسبب مستالة جوارشاسات مد وجواب واروح والوس
1	Chlaromethan	<u>u</u>	ug/kg	6	18-JAH-00 EPA 8260	99-214-9625
:	Vinyl chloride	U U	Ug/kg	3	18-JAN-00 EPA 8260 18-JAN-00 EPA 8260	99-214-9625
:	Chioronthian Brononthian	U	ug/kg ug/kg	6	18-JAN-00 EPA 8260 18-JAN-00 EPA 8260	99-214-9625 99-214-9625
	1,1-Dicatoroethane	n D	ug/kg ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
,		ช	na\ra	31	18-JAN-00 EPA 8260	99-214-9625
	Carbon : Craul fide	บ	78/KB	6	18-JAN-00 EPA 8260	99-214-9625
:	Nothylegie chioride	ŭ	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
•	trans-157-01chlorosthans	ΰ	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
	trans-122-01chloroethane	ย	ug/kg	ě	18-JAN-80 EPA 8260	99-214-9625
,	-le-1 Zirichi ornethene	ŭ	ug/kg	ő	18-JAN-00 EPA 8260	99-214-9625
•	cis-1, Zipitchloroethene Hethyl grinyl ketone (Z-Butanone)	Ü	ug/kg	31	18-JAN-00 EPA 5260	99-214-9625
•	Chiorofera	ű	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
	(1.4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	ü	ug/kg	6	18-JAN-00 EPA 0260	99-214-6625
<u>.</u>	1,1,1-16-1chloroethone Carbon satrachloride	บ		6	18-JAN-00 EPA 8260	99-214-9625
		ย	ug/kg	0.9	18-JAN-00 EPA 6260	99-214-9625
	Benzene	_	ug/kg		18-JAN-00 EPA 8260	99-214-9625
	1,2-Dickloroethone	Ų	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
•	Trichterettiene	Ü	ug/kg	6		
	1,2-Dieniaropropune	Ų	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
	Francist termethene ete-1 - Thistoropropine	U	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
	cie-1,3-9 initoropropeno	Ų	us/ks	6	0928 A43 00-NAL-81	99-214-9625
	Hethylitisobutyl ketone	u	Ug/kg	13	18-JAN-00 EPA 8260	99-214-9625
	Toluer	U	ug/kg	6	18-JAH-00 EPA 8260	99-214-9625
	trans 313-01chLoropropene	U	Ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
ĺ	1,1,2 Trichlorosthane	Ų	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
ł	Tetracilloroetheno	Ų	ug/kg	6_	18-JAH-00 EPA 8260	99-214-9625
l	Z-Hexagione	U	ug/kg	13	18-JAN-00 EPA 8260	99-214-9625
ł	Dibrogogitoromethene	Ų	ug/kg	6	18-JAH-GO EPA 8260	99-214-9625
1	Chlorigitatione	U	Ug/kg	6	18-JAN-DO EPA 8260	99-214-9625
1	Ethylbenzene	V	ug/kg	6	18-JAN-00 EPA 8260	79-214-9625
Ì	p-Xy(m)e/s-Xylene	ŭ	∪g/kg	6	18-JAN-00 EPA 8260	99-214-9625
1	o-Xyl ene	Ü	ug/kg	6	18-JAN-00 EPA 8260	99-214-9625
ŀ						

Page 2

**EPA NY 00033** Approved by: NY 10252 PA 68180 NJ 73188 Lab Director ug/L initiograms per liter (equivalent to parts per b = loos than ND or U = None Detected milligrams per hitogram (equivalent tit paris pe n); = milligrams per liter (equivalent to parts per million) mg/kg · mg/L result estimated below the quantum to limit = analyte was detected in the method or trip blank hermicrimation in this report is accurate to the best of our knowledge and ability. In no event shall our because exceed the 1069

out samples will be discarded after 14 days unless we are advised otherwise.



# ONE RESEARCH CHROLE WAVERLY, NY 1 soft 1502 TELEPHONE (607) 565-0500 FAX (007) 475-0687

LAB SAMPLE 10 : 144711-4

PNSR Ron Carper 2005 Cabot Boulevard West Hanghorne, PA 19047 20-JAN-2000

SAMPLE SOMET
CARGIN
DESCRIPTION
DESCRIPTION
DP-1/1.0-1.5

SAMELLION 11-I

11-JAN-00 15:35 by CLIENT 12-JAN-00 10:05

10-200.

N/A

<u>3</u>					·		
Analysis Performed	Result		Units	Detection Limit	Pate Analyzed	Kethod	Hotebook Reference
						<del></del>	
tyrene 8	v		ug/kg	6	00-KAL-81	ED: 83/6	
romotoria	บั		ug/kg	6		EPA 8260	99-216-9625
.1,2,2-Fetrachloroethans	ŭ				18-JAN-00	EPA 8260	99-216-9625
A start a little a control on titalin	U		ug/kg	6	00-MAL-5?	EPA 8260	99-214-9625
ibrary weench Compounds:	Results	Units	Ouel	Retention Time			
nknown	7	ug/kg	J	5.29			
nknown 🚉	10	ug/kg	j	20.7B			
nknown (2)	21	ug/kg	j	21.87			
	41	OB/ KB	J	21.07			
urrossta Recovery:							
fbromorfiugrosethane	110		x				
otuens (68.2)	109		2 ×				99-214-9625
-Broso El viorobenzena			ź				99-214-9625
witysing Comment: Dry weight besis.in	120		A				99-214-9625
1N .	rerpet stence	ata ≠ or	C OF LIBITA	lov.			
PA 8062							
CB 1016							
CB 122 2	V		mg/kg	0.12	18-JAH-00	EPA 8082	99-103-3569
C9 1232	U		mg/kg	0.25	00-HAL-81	EPA 8082	99-108-3569
UB 1838C	U		mg/kg	0.12	00-HAL-81	EPA 8082	99-108-3569
1224	ย		mg/kg	0.12	00-HAL-81	EPA 8082	99-108-3569
CB 1248	Ų		mg/kg	0.12	18-JAH-00	EPA 808Z	99-108-3569
CB 12545	U		mg/kg	0.12	18-JAX-00	EPA 8082	99-108-3569
38 126 <b>0</b> 5	U		mg/kg	0.12	18-JAN-00	EPA 8082	99-108-3569
Extraction information:					12-JAN-00		
No.					IC-JAM-00		99-154-152
irrosate lecovery:							
ocach Locobi pheny	102		X				99-108-3569
nelysis Comments PCb results are calc	culated on a	dry wel	ght basis.				
PA 8270			-				
1903							****
la(2-chroroethylather)	Ų		ug/kg	320	14-JAN-00	EPA 8270	98-051-1007
	Ų		ug/kg	320	00-KAL-11	EPA 8270	98-051-1007
Chlorephenol	Ų		ug/kg	320	14-JAH-DD	EPA 8270	98-051-1007
3-Dickforobenzone	U		ug/kg	320	14-JAN-00	EPA 8270	98-051-1007
4-Dickliprobenzene	U		ug/kg	320	14-JAN-00	EPA 8270	98-051-1007
Z-Dictiforobenzene	U		ug/kg	320	14-JAN-00	EPA 8270	98-051-1007
a(2-chilorof sopropylether)	U		ug/kg	320	14-JAN-00	EPA 8270	98-051-1007
Mothylationol	U		ug/kg	320	14-JAN-00	EPA 8270	98-051-1007
20			-· <del>-</del>				70-031-1007
							•

Paga 3

DC_	19:	NY 10252	NJ 73168	PA 68180	EPA NY 00033	Approved by:
KEY:	mg/L	<ul> <li>None Determine</li> <li>milligrame</li> <li>analyte w</li> </ul>	per liter (eq	ulvalent to pe	se then arts per million) or trip blank	ng/ky initigrams per liter tone-valent to parts her billion nig/ky in miligrams per kilopram (equivalent to parts per multi-result estimated below the quantitation (mit)

The information in this report is accurate to the bost of our knowledge and ability. In no event shall our habitis exceed the control those a four samples will be discarded after 14 days unless we are advised otherwise.



#### WAVERDY, NY 1812 332 ONE RESEARCH CIRCLE TELEPHONE (607) 566-8500 FAX plote 35 ned

result estimated below the quantition first

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A POPATORY	TELEPHONE (	307) 566-HáDO	E/Z Do:	4.7 % 19C	
ABORATORY N.E. C				DAIL	
LAB SAMPLE ID				20-JYN-500	กก
ion caro salar ce lo	L44711-4	<b>1</b>	SAMPLE SOURCE	ì	
- <b>- 2</b>		1	Office	BESICORP KINGSTON	
Section		1	CALCINA	DP-1/1.0-1.5	
ENSR			DESCRIPTION	GRAB	
Ron Carper			5AMC; 10 OH	,	
2005 Cabot Boulev	ard West		(20)N . 1 (7 (0))	11-JAN-00 15:35 by	CLIENT
Eanghorne, PA 190	47	.	DATE IN CRIVED	12-JAN-00 10:05	•
in 130	· ,	}	£+5-11 <b>0</b> .	N/A	
		ì		, M/ A.	
					and the
<b>3</b> 5 1			Detection	Dete	Not ebook
Analys ( Performed	Result	Units	Limit	Analyzed Hethod	Reference
-43					·~·
				64 444 DO	00 45: .00~
Hexach toroethane K-Nitrosodick-propylamina	U	ug/kg	320	14-JAN-00 EPA B270	98-051-10073
(-NitrosodicN-propylemine	Ų	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073 98-051-10073
i-Mathylphanal/4-Mathylphanol	Ñ	ug/kg	320	14-JAN-00 EPA 8270 14-JAN-00 EPA 8270	98-051-10073
Kitrobe@zene	Ú	U2/X9	320		98-051-10073
sophorphe:	Ų	na\ka	350		98-051-10073
2-XI trophonol	Ų	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
2,4-Digittiyilphonal	Ų	Ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Bis(2-chtochathoxymothene)	IJ	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
2,4-Dichcarophonol	U .	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
,2,4-ff.ichtorobenzene	U	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Annthatana	U	ug/kg	320	14-JAN-00 EPA 8270 14-JAN-00 EPA 8270	98-051-10073
-Chloggentillne lexochloggestadtene	Ų	ug/kg	630	14-JAN-00 EPA 8270 14-JAN-00 EPA 8270	98-051-10073
lexach probuted tene	u	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
i-Chio <del>la 3∴pethy</del> iphenoi	U 	ug/kg	630	14-JAN-00 EPA 8270	98-051-10073
2-Mathy Limphthalanc	U	ug/kg	320 320	14-JAN-OU EPA 8270 14-JAN-OO EPA 8270	98-051-10073
Kexach (drücystopentadione 2,4,6-16/dhtorophenot	U	ug/kg	320 320	14-JAN-00 EPA 8270	98-051-10073
2,4,6-74 antorophenol	V	ug/kg	320 320	14-JAR-00 EPA 6270	98-051-10073
2,4,5-7 Chilerophanol	Ų.	Ug/kg	320 320	14-JAN-DO EPA 8270	98-051-10073
2-Chlordrighthalene	Ų	ug/kg	1300	14-JAN-00 EPA 8270	98-051-10073
2-Mitrosoftline Disethyl phtholate	บ เเ	ug/kg	320	14-JAH-00 EPA BZ70	98-051-10073
Disermachinatare	บ บ	ug/kg ug/kg	320	14-JAH-00 EPA 8270	98-051-10073
Acenapithylene	ט 11	ug/kg	320 320	14-JAN-00 EPA 8270	98-051-10073
2,6-Dinttrotoluene	U ''		1300	14-JAN-00 EPA 8270	98-051-10073
S-NI trasiri l'ine Acemphinons	บ น	ug/kg ug/kg	250	14-JAN-00 EPA 8270	98-051-10073
ACOMODITATIONS	U	ug/kg	1300	14-JAN-00 EPA 8270	98-051-10073
C.4-DIDICCOPRODOL	U U	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
D benziguran	U	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
2,4-Dimerrotoluene	U U	ug/kg	1300 .	14-JAN-00 EPA 8270	98-051-10073
4-Nitrophenol	U	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Diethyki phthalate	U	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Fluoreige 4-Chlosophemylphenylether	. U	Ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
intopophenytonenytethor	. บ	ug/kg	1300	14-JAN-DO EPA 8270	98-051-10073
6-Nitroinitine	u u	ug/kg	1300	14-JAN-00 EPA 8270	98-051-10073
2-Nothyl-4-6-dinitrophenol K-Kitryeggiphenylomine	บ	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
A - m a cardinal familiar by Callet (1987)	U ·	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
6-Broniphinytphenytether Hexacity roberzenc	u	ug/kg	320	14-JAH-00 EPA B270	98-051-10073
nexactical community	นี้ ข	ug/kg	1300	14-JAN-00 EPA 8270	98-051-10073
Pentadiiorophenol	ď	ug/kg	320	14-JAN-GO EPA 8270	98-051-10073
Phonershirene Anthragene	. ü	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Anthragene Cerbazbie	บั	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Company of the balance	ŭ	ug/kg	320	14-JAN-00 EPA 8270	98-051-10073
Di-n-bityl phthalate	•	401.08			
<b>5</b>					
ξ.·		Page	4		
		. =40			
<b>₩</b>					
kil,					

2 QC PA 88180 **EPA NY 00033** Approved by: NY 10252 NJ 73168 Lab Director missignams per him lequivalent to paids per bis KEY: KND or U = None Detected = less than ug/L < ©mg/L ₽ B or milligrams per kilogram (equivalent til parls per πე∕kg = milligrams per liter (equivalent to parts per million)

The Information in this report is accurate to the best of our knowledge and ability. In no event shall our limiting exquait the our samples will be discarded after 14 days unless we are advised otherwise

"Our family, caring about your analytical needs . . . Since 1963."

= analyte was doteoted in the method or trip plank



ONE RESEARCH CIRCLE WAVERLY, NY 152 C 532 TELEPHONE (607) 5:55-3500 FAX (607) To a long

LAB SAMPLE ID L44711-4 BIAG UUUC-NVC-OC

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ENSR Bon Carper 2005 Cabot Boulevard West Manghorne, PA 19047

SAMPLE BURGE Uniesia IN SCHOOL FICH 40 OHTHAG

BESICORP KINGSTON DP-1/1.0-1.5

GRAB

:11-JAN-00 15:35 by CLIENT 12-JAN-00 10:05

DATE DECEMBLE PO IN.

N/A

30)			Burth France or ex-						
Analysis Penformed	Resu	ilt	Units	Detocti Limi t	ion	Date Analyzed	Method	Notebook Reference	
, <u>17</u>								M. A. A. A	
fluorentfiene	u		ug/kg	320		14-JAN-00	ED4 8370	20 of t 400m	
Pyrene of	ŭ		ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
Sutylbergyl phthalate	ŭ		ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
Denzo(a)enthrecene	ŭ		ug/kg ∪g/kg	320		00-MAL-21	EPA BZ70	98-051-10073	
3,3-01cbtorobenzidine	ŭ		ug/kg	630		14-JAN-OD	EPA 8270	98-051-10073	
Chrysenes	13		ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
Dia-2-athribaxyl phthalate	ű		Ug/kg	320			EPA 8270	98-051-10073	
Di-m-octs to patholate	ŭ		ug/kg	320		14-JAN-DD	EPA 8270	98-051-10073	
Benza(b) ffuoranthene	89 J					14-JAH-DD	EPA 8270	93-051-10073	
Bonzo(k) Juvoranthene	11		ug/kg ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
Вепло(в. 19 уделе	X			320		14-JAN-00	EPA 8270	98-051-10073	
Indeno(1922/37cd)pyrene	· ·		ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
Dibenzo(a, fi) inthracene	Ÿ		ug/kg	320		14-JAH-00	EPA 8270	98-051-10073	
Bcn2o(ggg,1)perylene	Ŭ		ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
in:	U		ug/kg	320		14-JAN-00	EPA 8270	98-051-10073	
Extraction Unformation:						13-JAN-00		99-137-143	
Library Bearch Compounds:		Results	Unita	Qual	Retention				
***					line				
4-Hydroxy:4-Hethyl-2-Pentanone	7400	ug/kg		7.25		<u> </u>			

•	Librery	Search Compounds:		Results	Unite	Qual	Retention Time		
<b>,</b>	Unknown		7400 4100 1000	ug/kg ug/kg ug/kg	j	7.25 12.61 38.19		***************************************	
,	Unknown Unknown Unknown		780 570 1300	ug/kg ug/kg ug/kg ug/kg	j j	38.8 40.5 41.22			_
•	Unknown		370 590	ug/kg ug/kg	7	44.52			
	Terphent 2-Fluore Phenol-2	altimot	69 62 84		X X				98-951-10073 98-951-10073 98-951-16073
. !	2,4,6-TM Nitrobeta 2-Fluore	(Brismophenol Zime-c5 Diphenyl Comment: Results Calculate	85 71 72	eight basi	X X X				98-051-10073 98-051-10073 98-051-10073
	<u> </u>		·	-					
į									; ; ;
j					Page 5				: :
1	15.3								

QC	<u>इं</u> इंग्र	NY 10252 NJ	73168	PA 68180	EPA NY 00033	Approved to	Lab Director
KEY:	mg/L	= None Detected = milligrams per = analyte was de	litar (equ	lvatant to pai	is than its per million) or trip blank		Inquivatent to party per billed an Inquivators to parts per miles the quantity of miles.

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the table Your samples will be discarded after 14 days unless we are advised otherwise.



#### ONE RESEARCH CIRCLE WAVERIA, NY 1980 362 TELEPHONE (607) 665-5500 FAX (607) # + 1983

LAB SAMPLE ID

L44711-5

Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

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BESICORP KINGSTON SS-1/1.0-1.5

GRAB

11-JAN-00 16:15 by CLIENT 12-JAN-00 10:05

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20-JAN-2000

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112 112		And the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s					
Anetysis Performed	Result	Units.	Detection Limit	Date Analyzed	Xethod	Notebook Reference	
Cyanide Total	u	mg/kg	0.425	19-JAH-00	EPA 335.3	99-003-72	
Total Jolius	92.1	x		13-JAK-00	CLP 3.0	97-070-247	
Aluminat	6940	សក្ក/kg	8.28	19-JAN-00	EPA 6010	99-227-02	
Antimogy	U	mg/kg	5.52	19-JAN-00	EPA 6010	99-227-02	
Araenigi	U	mg/kg	13.2	00-HAL-01	EPA 6010	99-227-02	
\$urfunc	15.8	mg/kg	1.77	19-JAN-00	EPA 6010	99-227-02	
Beryldin	υ	mg/kg	0.221	19-JAN-00	EPA 6010	99-227-02	
Codelus	U	mg/kg	0.5520	00-MAL-91	EPA 6010	99-227-02	
Colcitie	150	mg/kg	55.2	19-HAL-91	EPA 6010	99-227-02	
Chronitian	7.39	mg/kg	1.10	19-JAN-00	EPA 6010	99-227-02	
Cobelig	5.71	mg/kg	1.10	19-JAN-00	EPA 6010	99-227-02	
Coppe	7.06	mg/kg	1.88	19-JAN-00	EPA 601D	99-227-32	
Iron -	13400	mg/kg	4.41	19-JAN-00	EPA 6010	99-227-02	
Lead	10	mg/kg	4.86	19-JAN-00	EPA 6010	99-227-02	
Kagner Tum	2540	mg/kg	55.2	19-JAN-00	EPA 6010	99-227-02	
Hangapese	363	mg/kg	0,552	00-WAL-91	EPA 6010	99-227-02	
		41	. 53	00-HAL-01	EPA 6010	99-227-02	
Nickel	15.2	me/kg	1.32			99-227-02	
Potata (un	593	mg/kg	55.2 - <del>-</del>	19- JAN-00		99-227-02	
Selection	U	mg/kg	7.73	19-JAN-00	·	99-227-02	
attro	U	mg/kg	1.10	19-JAN-00	EPA 6010	79-221-02	

Page 1

NJ 73168 **EPA NY 00033** Approved by: PA 68180 NY 10252 Lab (Descrie mittigfams por Wei fequivalent to I into per : ug/L ND or U = None Detected = less than KEY milligrams per kildidram (equivalent to parts p = milligrams per liter (equivalent to parts per million) mg/kg mg/L result estimated balow the quies to the limit = analyte was detected in the mothod or trip blank J B

ha information in this report is accurate to the best of our knowledge and ability. In no event shall our and by exceptions Your eamples will be discarded after 14 days unless we are advised otherwise.



ONE RESEARCH CIRCLE WAVERLY, NY 19892 632 TELEPHONE (607) 565-3500 FAX (607) 561 (583)

LAB SAMPLE ID L44711-5

ensr

Ron Carper 2005 Cabot Boulevard West Langhorns, PA 19047

DATE 20-JAN-2000

SAMPLE SOUTH family.

DESIGNIFTION BAULT OF CH DATE BECEIVED

BESICORP KINGSTON SS-1/1.0-1.5

GRAB

11-JAN-00 16:15 by CLIENT 12-JAN-00 10:05

N/A PD BO.

	Result	Unite	Limit	Analyzed	Xethod	Hotebook Reference
*						-4
odfum 🕌	45.9	mg/kg	22.1	19-JAN-00	EPA 6010	60 227 62
<b>3</b>	••••	"Wind	CLII	13-204-00	EPA OUTU	99-227-02
alituija	บ	mg/kg	7.17	19-JAN-00	EPA 6010	99-227-02
medium.	9.26	mg/kg	1.10	19-JAN-00	EPA 6010	99-227-02
nc 💥	33.9	mg/kg	2.21	19-JAN-00	EPA 6010	99-227-02
A 6266						
(orometaene	υ	Ug/kg	5	18-JAN-00	EPA 8260	00-234-0434
nyl chigoride	บิ	UB/KB	5	18-JAN-OD	EPA 8260	99-214-9626 99-214-9626
loroothano	U	ug/kg	5	18-JAN-OD	EPA 8260	99-214-9626
omoraethane	U	ug/kg	5	18-JAN-00	EPA 8260	99-214-9626
1-Dichigroethene	U	ug/kg	S	18-JAH-00	EPA 8260	99-214-9626
etone	U	ug/kg	27	00-KAL-81	EPA 8260	99-214-9626
rbon disulfide thylone-chloride	U	ug/kg	5	00-NAL-81	EPA 8260	99-214-9626
ans-122-Dichloroethens	Ų	ug/kg	5	00-MAL-81	EPA 8260	99-214-9626
1-Dichtoroethena	Ų.	ug/kg	5	1B-JAH-DO	EPA 8260	99-214-9626
s-1,2001ch torpethene	Ľ.	ug/kg	5	00-WAL-81	EPA 8260	99-214-9626
thy othy ketone (2-Butenone)	. u	ug/kg	,	00-KAL-81	EPA 8260	<del>99</del> -214-9626
toroform:	U U	ug/kg	27	18-JAN-00	EPA 8260	99-214-9626
1,1-Telephoroethene	U U	ug/kg	5	18-JAN-00	EPA 8260	99-214-5626
rbon Editachtoride	U U	Ug/kg	5	18-JAN-00	EPA 8260	99-214-9626
uzeueki:	U U	ug/kg	5	18-JAN-DD	EPA 8260	99-214-9626
2-01chiospethane	ŭ	ug/kg	0,7	18-JAN-00	EPA 8260	99-214-9626
ichlorgethene	บ	ug/kg	2	00-WAL-81	EPA 8260	99-214-9626
2-0 lele propropere		ug/kg ug/kg	3	18-JAN-00	EPA 8260	99-214-9626
opodichi promethane	Ü	ug/kg	ž	18-JAN-00	EPA 8260	99-214-9626
s-1,3 gjuntoropropene	ŭ	ug/kg	5	00-HAL-81	EPA 8260	99-214-9625
thy isobutyl katone	บั	ug/kg	11	18-JAN-00	EPA 8260	99-214-9624
Luenest	บ	ug/kg ug/kg	5	00-WAL-BE	EPA 8260	99-214-9626
ana-133-Dichtoropropene	บ	ug/kg ug/kg	2	18-JAK-00	EPA 8260	99-214-9626
1,2-1st chiloroethane	ນັ	ug/kg ug/kg	5	18-JAN-00	EPA 8260	99-216-9626
trachitozoethene	ŭ	ug/kg	5	18-JAN-00	EPA 8260	99-214-9626
Hexanone	ŭ	ug/kg	11	00-KAL-8f 00-XAL-8f	EPA 8260	99-214-9626
bromočki oromethene	ŭ	ug/kg	5	00-MAL-81	EPA 8260 EPA 8260	99-214-9626
Lorobenzene	ŭ	ug/kg	5	18-JAH-00	EPA 8260	99-214-9626
ny l benji ana	ŭ	ug/kg	Ś	18-JAN-00	EPA 8260	99-214-9626
(yleng)m-Xylene	ŭ	ug/kg	ś	18-JAN-00	EPA 8260	99-214-9626
(yliena:	Ŭ	ug/kg	Ś	18-JAN-00	EPA 8260	99-214-9626 99-214-9626

Page 2

oc	の対象を	NY 10282	NJ 73188	PA 68180	EPA NY 00033	Approved by:	fol	Lab Oire the	1
(EY:	mg/L	= None Detect = milligrams po = analyte was	er liter (eq	ulvalent to pa	ss than rts per million) or trip blank	mozkg miligrai	ins par kiloura	ongivalent to norse on lequivalent to p the quantities of t	ints per m

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the control your samples will be disparded after 14 days unless we are advised otherwise.



#### ONE RESEARCH CIRCLE WAVERDLY, NY 19800 1203 TAX (607) -- 0.007 TELEPHONE (607) 565-3500

IIAQ

30-JAN-2000

LAB SAMPLE ID L44711-5

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Ron Carper 2005 Cabot Boulevard West Eanghorne, PA 19047

SAMPLE SENTINGE CHICIN or senithon

SAMPLED ON

DATE DECLIVED

BESICORP KINGSTON |SS-1/1.0-1.5

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11-JAN-00 16:15 by CLIENT 12-JAN-00 10:05

P (81 41) N/A

							•• ••
nalysis(Performed	Result		Units	Detection Limit	Dote Analyzed	Method	Hotebook Reference
gthruio 🐩	บ		ug/kg	5	18-JAN-00	EPA 8260	99-214-9626
romoforms	ŭ		ug/kg	5	00-MAL-81	EPA 8260	99-214-9626
,1,2,2-Tattachiorosthens	ŭ		us/ks	5	00-HAL-81	EPA 8260	99-214-9626
1,1,2,1	•						
Ibrary Search Compounds:	Results	Unite	Qual	Retention Time			
nknown ***	6	ug/kg	J	5.28			
nknown (E)	6	ug/kg	. J	21.87			
3							
urrogetel Recovery:							99-214-9626
Spromofficoroge there	104		ጟ				99-214-9626
oluene 28	100		×				99-214-9626
-Bromofitionobenzene	104		X				77-214-7060
nelysis Comment: Results Calculated	ou a qua meia	וצפט זה	3.				
PA 80826							
CB 10162	υ		mg/kg	0.1	00-HAL-B1	EPA 8082	99-108-3570
CB 101625	-		ma/kg	0.21	00-KAL-81		99-108-3570
CB 1221%;	U U		mg/kg	0.1	18-JAN-00		99-108-3570
CR 1232	-			0.1	18-JAN-00	4	99-108-3570
'CB 1242일	υ		me/ks	0.1	18-JAN-DO		99-108-3570
B 12488	Ų		mg/kg		00-KAL-81		77-108-3570
48 125(3):	Ų		mg/kg	B.1	00-MAL-81		99-108-3570
CB 1260%	IJ		mg/kg	0.1	IO-JAN-OU	EFA OUDS	77-103-371
Extraction Information:					12-JAN-00		99-154-152
<b>AS</b>							
urrogate Recovery:	***		_		•		99-108-3576
recech Logob (phany L	110		, <b>X</b> , ha baada				77-100-331
inalyais Comment: PCb results are ca	iculated on a	ach Re.	ight besis.				
PA 8270 ( )							
. 94	14			260	14-JAN-00	EPA 8270	98-051-100
[[e(Z-chiprosthylether)	ji L		ug/kg	260	14-JAH-00		98-051-100
henet (): -Chlorophanot	u		ug/kg	260	14-JAN-00		98-051-100
	ย		ug/kg	260	00-KAL-21		98-051-100
1,3-Dichigorobenzene	U		ug/kg	260 260	00-KAL-25		98-051-100
,4-Dickligrobenzene	บ		ug/kg	260 260	14 - JAN -00		78-051-100
,2-Dickijorobinzene	Ų i		ug/kg	260 260	14 - JAN -00	<b>2</b>	98-051-100
ils(2-chionolsopropylether)	U		Ug/kg	260	14-JAN-00		98-051-100
:-Hothylphenol	U		ug/kg	260 260	14-JAN-00		98-051-100
lexach Locothane	บ		ug/kg	200	10-1M4-DC	LIN DELV	70 02.1100

Page 3

i.);c	20 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	NY 10252	NJ 73188	PA 68180	EPA NY 00033	Approved by: (3b Director)
EY:	mg/L	= None Dete = milligrams = analyte wi	per liter (eq	uivalent to pa	ss than ids per million) or trip blank	mg/kg — micograms per liter (aquivalent to party thir billion mg/kg — milligrams per kilogram (aquivalent 1) barra per milligrams per kilogram (aquivalent 1) barra per million result estimated batow the quantitat and mit

[·] Information in this report is accurate to the best of our knowledge and ability. In no event shall our flability exceed the cost of mean six r samples will be discarded after 14 days unless we are advised otherwise.

[&]quot;Our family, caring about your analytical needs . . . Since 1963."



#### ONE RESEARCH CIRCLE WAVERLY, NY 118 2 622 TELEPHONE (607) 565-8500 FAX (000) 10% bodg

LAB ŞAMPLE ID

L44711-5

BNSR Ron Carper 2005 Cabot Boulevard West Langhorne, PA 19047

DAIS 20-JAN-2000

CAMPET SOURCE (BIR HIR)

BESICORP KINGSTON SS-1/1.0-1.5

OUSCOUPTION SAMPLED ON GRAB

DATE OF CERTS D

111-JAN-00 16:15 by CLIENT 12-JAN-00 10:05

200

: N/A

<u>, jë</u>	_					
Analysis Performed			Detection	Date	<del>-</del>	98-051-10070 98-051-10070 98-051-10070 98-051-10070 98-051-10070 98-051-10070 98-051-10070 98-051-10070 98-051-10070 98-051-10070
Ava tyana Pernomeo	Result	Unita	Limit	Analyzed	Rethod	Reference
N-Nitropodi-N-propylanine	ย		3/0	44 1011 00		
3-Nethy phenol/4-Nethylphenol	น้	ug/kg ug/kg	260 260	14-JAN-00	EPA 8270	98-051-10070
Ni trobatione	บ		260	14-JAX-00	EPA 6270	98-051-10070
Taophuliona	ŭ	UG/kg Ug/kg	560	14-JAN-00	EPA 8270	98-051-10070
Z-Mitroghimoi	ŭ	Ug/kg	260	14-JAN-00 14-JAN-00	EPA 8270	98-051-10070
2,4-0 inethy (phenol	บ	ug/kg	260 ·		EPA 0270	98-051-10070
Bis(2-chloroethoxymethone)	ŭ	US/KH	260	00-MAL-21 00-MAL-21	EPA 8270	98-051-10070
2,4-Dichiarophenol	ň	up/kg	260		EPA 8270	98-051-10070
1,2,4 Dichtorobenzone	ŭ	Ug/kg	260	00-KAL-41 00-KAL-41	EPA 8270	98-051-10070
Kaphthalens	Ü	Ug/kg	260		EPA 8270	98-051-10070
4-ChldgoantLine	ŭ	us/kg	530	00-MAL-11 00-MAL-11	EPA 8270	98-051-10070
Hexacisurobuted one	· Ü	ug/kg	260		EPA 8270	
4-Chingo-X-methylphonol	บั	ug/kg Ug/kg	200 530	14-JAN-00	EPA 8270	98-051-10070
2-Kathalalene	U	ug/kg	260	14-JAN-00	EPA 8270	98-051-10079
Hexacility rocyclopentactione	บ	ug/kg ug/kg	260 260	14-JAN-00	EPA 8270	98-051-10070
2,4,6% richi orophenol	บั	υ ₂ /kg	260	14-JAN-00	EPA 8270	98-051-10070
Z,4,5%richtorophenol	บั	ug/kg ug/kg	260	14-JAH-00	EPA 8270	98 - 05 - 10070
2-Ch toconechthalena	ŭ		260	14-JAN-00	EPA 8270	98-051-10070
2-Nitroenitine	U U	ue/kg		14-JAN-00	EPA 8270	98-051-10070
2-m crown (the Disetily Conthainte	-	ug/kg	1100	14-JAN-00	EPA 8270	98-051-10070
	Ŭ	ug/kg	260	14-JAN-00	EPA 8270	92-051-10070 💢
Acenaphthyteno 2,6-DGni trotolusne	Ų	ug/kg	260	14-JAN-00	EPA 8270	98·051·10070 /g
3-XI-troinfline	Ų	UB/KB	260	14-JAN-00	EPA 8270	98-051-10070 🗟
Acenbhitione	U	Ug/kg	1100	14-JAN-00	EPA <b>5</b> 270	98-051-10070:3
2,4-Pinitrophenol	U	ug/kg	260	14-JAH-00	EPA 8270	98-051-10070
e, 4-48 ii robisnot 9 (bankofuran	ñ	ug/kg	1100	14-JAH-00	EPA 8270	98-051-10070_}
	D.	ug/kg	260	14-JAN-00	EPA 8270	98-051-10070 <del>%</del>
2,4-tijnitrotolueno 4-Ki tijophimol	Ü	ng/kg	560	14-JAN-00	EPA 8270	98-051-16070
o-ni spomino. Distiyi: pithelate	ង	ug/kg	1100	14-JAN-00	EPA 8270	98-051-1007015
Fluorene	U 	ug/kg	260	00-MAL-47	EPA 8270	98-051-10070
4-Chigorophonylphanylether	υ ''	ug/kg	260	14-JAN-00	EPA 8270	98-051-1007
4-digoropiunyteiner 4-Kittosniline	Ŋ	Ug/ka	260	14-JAN-00	EPA 8270	98-051-10070/
	Ų	ug/kg	1100	14-JAN-00	EPA 8270	98-051-10070 G
Z-Metfyl-4,6-dinitrophenol N-Nithosodiphenylamine	U	ug/kg	1100	14 - JAN - 00	EPA 8270	98-051-10070
ATRICTORUM PRINTY LANDON	υ	ug/kg	260	14-JAN-00	EPA 8270	98-051-10070 98-051-10070
C-Bromophenylphenylether	U	ug/kg	260	14- JAN-00	EPA 8270	98-051-10070
Hexacili Lorobenzene Pentatri Lorophono i	Ų	ug/kg	260	14-JAN-00	EPA 8270	98-051-100(0)79
Peninthrène Pheninthrène	U	ug/kg	1100	14-JAN-00	EPA 8270	98-051-10070
rnengincene Antkëdoane	Ü	ug/kg	260	14-JAN-00	EPA 8270	98-051-10070
	ប	ug/kg	260	14-JAH-00	EPA 8270	98-051-10070
Corbizale	Ų	ug/kg	260	14-JAN-00	EPA 8270	98-051-10070% 98-051-10070%
Di-mbutyl phthalate	Ų	υg/kg	260	14 - JAH - DD	EPA 8270	98-051-10070
Plugeonthone	บ	ug/kg	260	14-JAN-00	EPA BZ70	98-051-10073
<i>₹</i> €						3.30

Page 4

NY 10252 NJ 73185 PA 68180 **EPA NY 00033**  Lab Director

KEY, ND or U = None Detected

< = less than

ug/L ng/kg misugrams, per tim (equivalent to pure our :

mg/L

= milligrams per liter (equivalent to parts per million) = analyte was detected in the method or trip blank

1_

minigrams per Mogram (oquivilient to parts ex result estimated below the quote to the con-

The information in this report is accurate to the best of our knowledge and ability. In no event shall our superty except the Your eamples will be discarded after 14 days unless we are advised otherwise.

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